



Filterra Sizing Spreadsheet
Uniform Intensity Approach
Storm Intensity = 0.20 in/hr

Filterra Infiltration Rate = **100** (in/hr)
 Filterra Flow per Square Foot = 0.0023 (ft3/sec/ft2)

Filterra Flow Rate, Q = 0.0023 ft3/sec x Filterra Surface Area
 Rational Method, Q = C x I x A

OR Site Flowrate, Q = (C x DI x DA x 43560) / (12 x 3600)
 DA = (12 x 3600 x Q) / (C x 43560 x DI)

where Q = Flow (ft3/sec)
 DA = Drainage Area (acres)
 DI = Design Intensity (in/hr)
 C = Runoff coefficient (dimensionless)

| | | | DI | C | C | C |
|------------------------------|----------|-----------------------------|---------------------------------|-------------------------|-------------------------------|----------------------------|
| | | | 0.2 | 1.00 | 0.9 | 0.50 |
| Available Filterra Box Sizes | | | Filterra Flow Rate, Q (ft3/sec) | 100% Imperv. DA (sq ft) | Typical Impervious DA (sq ft) | Residential max DA (sq ft) |
| L (ft) | W (ft) | Filterra Surface Area (ft2) | | | | |
| 4 | 4 | 16 | 0.0370 | 8,000 | 8,889 | 16,000 |
| 6 | 4 | 24 | 0.0556 | 12,000 | 13,333 | 24,000 |
| 6.5 | 4 | 26 | 0.0602 | 13,000 | 14,444 | 26,000 |
| 8 | 4 | 32 | 0.0741 | 16,000 | 17,778 | 32,000 |
| 6 | 6 | 36 | 0.0833 | 18,000 | 20,000 | 36,000 |
| 8 | 6 | 48 | 0.1111 | 24,000 | 26,667 | 48,000 |
| 10 | 6 | 60 | 0.1389 | 30,000 | 33,333 | 60,000 |
| 12 | 6 | 72 | 0.1667 | 36,000 | 40,000 | 72,000 |
| 13 | 7 | 91 | 0.2106 | 45,500 | 50,556 | 91,000 |

| | | |
|----------------------------------|--------|----------|
| Drainage Area | Imperv | # Units |
| Northeast along California Drive | 13,303 | 1 |
| Northwest along California Drive | 10,333 | 1 |



Project Name: Millbrae Serra Station - Residential
 Project Number: 16.04012.00

Date: 1/25/2018
 Phase: Design

Design submission:
 Construction submission:

LEED-CS 2009 LEED Project Checklist (Project Target - GOLD)

| Prerequisite | Yes | Maybe | No | Design / Construction | Available Points | Responsible Party | LEED Credit Requirements | Meeting Notes and Action Items | Credit Documentation Schedule |
|--------------|-----|-------|----|-----------------------|------------------|-------------------|---|--|-------------------------------|
| Y | | | | Pif1 | | HOK / DJC | Must Comply with Minimum Program Requirements. Commit to Sharing Whole-Building Energy and Water Usage Data | Create energy star accounts, owner signature needed. | |
| Y | | | | Pif2 | | HOK / Glumac | Building and Site Area Site Characteristics Energy & Water Sources Budget | Verify size, parking or budget, LEED boundary. | |
| Y | | | | Pif3 | | HOK / Glumac | Space Usage Information | Verify space usage, occupancy. Verify that no space is unconditioned. | |
| Y | | | | Pif4 | | HOK / Glumac | Provide Mechanical Schedules. Confirmed the intent to use binding Lease / Sales Agreement | Schedule dates need to be updated, mechanical schedule needed, LEED boundary needs to be demarcated on plan. | |
| Y | | | | Pif5 | | Glumac | Identify the division of work between the base building and tenant work. Describe | Provide MEP narrative. | |

Sustainable Sites

| Y | | | | | Prereq 1 | Available Points | Responsible Party | LEED Credit Requirements | Meeting Notes and Action Items | Credit Documentation Schedule |
|---|----|---|---|---|---------------------|------------------|-------------------|--|--|-------------------------------|
| Y | | | | C | Prereq 1 | | Webcor | | Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. | |
| | 1 | | | D | Credit 1 | 1 | HOK | Site Selection | Do not develop buildings, hardscape, roads or parking areas on portions of sites that meet any of the following criteria. | |
| | 5 | | | D | Credit 2 | 5 | HOK | Development Density & Community Connectivity | Document 10 Basic Services within 1/2 mile distance. Salon, grocery stores, bank, restaurants, school, pharmacy | |
| | | | 1 | D | Credit 3 | 1 | BKF | Brownfield Redevelopment | Verify bioremediation needs. 01/24 - Per phase II ESA, not contaminants found on site | |
| | 6 | | | D | Credit 4.1 | 6 | HOK | Alternative Transportation: Public Transportation Access | Document Rail and Bus Routes. | |
| | 1 | | | D | Credit 4.2 | 1 | HOK | Alternative Transportation: Bicycle Storage & Changing Rooms | Verify rack or shower totals or location. | |
| | 3 | | | D | Credit 4.3 | 3 | HOK | Alternative Transportation: Low Emitting & Fuel Efficient Vehicles | Provide preferred parking ¹ for low-emitting and fuel-efficient vehicles ² for 5% of the total vehicle parking capacity of the site OR install alternative-fuel fueling stations for 3% of the total vehicle parking capacity of the site. Liquid or gaseous fueling facilities must be separately ventilated or located outdoors. | |
| | | 2 | | D | Credit 4.4 | 2 | HOK | Alternative Transportation: Parking Capacity | Size parking capacity must meet but not exceed minimum local zoning requirements. Per the kick-off meeting- 50 more parking spaces provided then the minimum required. 01/24- Parking counts have reduced, credit to be confirmed. | |
| | | | 1 | C | Credit 5.1 | 1 | HOK / BKF | Site Development: Protect or Restore Habitat | Limit all site disturbance to the following parameters; OR Restore or protect a minimum of 50% of the site (excluding the building footprint) or 20% of the total site area (including building footprint), whichever is greater. 01/24- Given the building footprint, credit difficult to achieve | |
| | | 1 | | D | Credit 5.2 | 1 | HOK / BKF | Site Development: Maximize Open Space (RP) | Provide vegetated open space equal to 20% of the project's site area. 01/24- Including Green roofs, credit possible to achieve, team to confirm calculations. | |
| | | | 1 | D | Credit 6.1 | 1 | BKF | Stormwater Design: Quantity Control | Implement a stormwater management plan that prevents the post-development peak discharge rate and quantity from exceeding the predevelopment peak discharge rate and quantity for the 1- and 2-year 24-hour design storms. | |
| | 1 | | | D | Credit 6.2 | 1 | BKF | Stormwater Design: Quality Control | Implement a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the average annual rainfall ¹ using acceptable best management practices (BMPs). | |
| | 1 | | | C | Credit 7.1 | 1 | HOK | Heat Island Effect: Non-Roof | 29. All parking is under cover. | |
| | 1 | | | D | Credit 7.2 | 1 | HOK | Heat Island Effect: Roof | Minimum SRI 78 | |
| | | 1 | | D | Credit 8 | 1 | HOK | Light Pollution Reduction | | |
| | 19 | 4 | 3 | | 28 Points Available | 26 | | | | |

Water Efficiency

| Y | | | | | Prereq 1 | Available Points | Responsible Party | LEED Credit Requirements | Meeting Notes and Action Items | Credit Documentation Schedule |
|---|---|---|--|---|----------|------------------|-------------------|-----------------------------|--|-------------------------------|
| Y | | | | D | Prereq 1 | | Glumac | | Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation). | |
| | 2 | 2 | | D | Credit 1 | 4 | HOK / BKF | Water Efficient Landscaping | Reduce potable water use by 50% or 100%. Purple pipe infrastructure from the city 01/24- Team considering storm-water treatment on-site, recycled water to be used for irrigation and flushing toilets | |

| | | | | | | | | | |
|---|---|---|--|---|----------|---|-----------------------|----|--|
| 2 | | | | D | Credit 2 | Innovative Wastewater Technologies | BKF / Putman / Glumac | 2 | Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures; OR treat 50% of wastewater on-site to tertiary standards. 01/24- Team considering storm-water treatment on-site, recycled water to be used for irrigation and flushing toilets. |
| 4 | | | | D | Credit 3 | Water Use Reduction (30% = 2 Points; 35% = 3 Points; 40% = 4 Points) (RP) | Glumac | 4 | Employ strategies that in aggregate use 40% less water than the water use baseline calculated for the building (not including irrigation). |
| 8 | 2 | 0 | | | | 10 Points Available | | 10 | |

Energy & Atmosphere

| | | | | | | | | | |
|----|----|---|--|---|------------|--|---------|----|---|
| Y | | | | C | Prereq 1 | Fundamental Commissioning of the Building Energy Systems | CxA | | Commissioning Activities. 1/24- Owner to contract commissioning agent. |
| Y | | | | D | Prereq 2 | Minimum Energy Performance | Glumac | | Demonstrate a 10% improvement in the proposed building performance rating compared with the baseline building performance rating. Calculate the baseline building performance rating according to the building performance rating method in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda1) using a computer simulation model for the whole building project. |
| Y | | | | D | Prereq 3 | Fundamental Refrigerant Management | Glumac | | Zero use of chlorofluorocarbon (CFC)-based refrigerants in new base building heating, ventilating, air conditioning and refrigeration (HVAC&R) systems. |
| 12 | 7 | | | D | Credit 1 | Optimize Energy Performance | Glumac | 19 | See EAp2. Assume 35% reduction as minimum. 01/24- Glumac's preliminary estimate is atleast 30% energy reduction compared to Title 24-2005/ASHRAE 90.1 2007. |
| | 2 | 5 | | D | Credit 2 | On-Site Renewable Energy (RP) | Glumac | 7 | ACP: Power Purchase Agreement - Solar Shares |
| 2 | | | | C | Credit 3 | Enhanced Commissioning | CxA | 2 | Additional commissioning process activities |
| | 2 | | | D | Credit 4 | Enhanced Refrigerant Management | Glumac | 2 | 01/24- Glumac to confirm achievability after mechanical systems are decided. |
| 3 | | | | D | Credit 5.1 | Measurement & Verification | TBD | 3 | Develop and implement a measurement and verification (M&V) plan consistent with Option D: Calibrated Simulation 01/24- Owner interested in pursuing Measurement and Verification, Energy modeler/CXA to be contracted to administer an M&V plan. |
| | 2 | | | C | Credit 6 | Green Power | HOK/DJC | 2 | Confirm cost estimate of 3pts (70%/2yr contract). |
| 17 | 13 | 5 | | | | 37 Points Available | | 35 | |

Materials & Resources

| | | | | | | | | | |
|---|---|---|--|---|----------|--|--------|----|--|
| Y | | | | D | Prereq 1 | Storage & Collection of Recyclables | HOK | | Provide an easily-accessible dedicated area or areas that for the collection and storage of materials for recycling for the entire building. |
| | | 5 | | C | Credit 1 | Building Reuse: Maintain Existing Walls, Floors & Roof (25% = 1 Point; 33% = 2 Points; 42% = 3 Points; 50% = 4 Points; 75% = 5 Points) | | 5 | |
| 2 | | | | C | Credit 2 | Construction Waste Management (50% = 1 Point; 75% = 2 Points) | Webcor | 2 | Recycle and/or salvage nonhazardous construction and demolition debris. Develop and implement a construction waste management plan. Dirt from the site to be used at the adjacent site for fill. |
| | | 2 | | C | Credit 3 | Materials Reuse | | 2 | Use salvaged, refurbished or reused materials, the sum of which constitutes at least 5%, based on cost, of the total value of materials on the project. |
| 2 | | | | C | Credit 4 | Recycled Content (10% = 1 Point; 20% = 2 Points) | Webcor | 2 | Use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. |
| 2 | | | | C | Credit 5 | Regional Materials (10% = 1 Point; 20% = 2 Points) | Webcor | 2 | Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value. |
| 1 | | | | C | Credit 6 | Certified Wood | Webcor | 1 | Use a minimum of 50% (based on cost) of wood-based materials and products that are certified in accordance with the Forest Stewardship Council's principles and criteria, for wood building components. |
| 7 | 0 | 7 | | | | 13 Points Available | | 14 | |

Indoor Environmental Quality

| | | | | | | | | | |
|---|--|--|--|---|----------|---|-----------|--|--|
| Y | | | | D | Prereq 1 | Minimum IAQ Performance | Glumac | | Meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda1) |
| Y | | | | D | Prereq 2 | Environmental Tobacco Smoke (ETS) Control | HOK / DJC | | Prohibit smoking in the building. Prohibit on-property smoking within 25 feet of entries, outdoor air intakes and operable windows. |

| | | | | | | | | |
|----|---|---|---|------------|---|----|--------------|---|
| 1 | | | D | Credit 1 | Outdoor Air Delivery Monitoring | 1 | Glumac | Install permanent monitoring systems to ensure that ventilation systems maintain design minimum requirements. |
| 1 | | | D | Credit 2 | Increased Ventilation | 1 | Glumac | Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2007. |
| 1 | | | C | Credit 3 | Construction IAQ Management Plan: During Construction | 1 | Webcor | Develop and implement an IAQ management plan after installation of all finishes and completion of building cleaning but before occupancy. |
| 1 | | | C | Credit 3 | Construction IAQ Management Plan: Before Occupancy | 1 | Webcor | Develop and implement an IAQ management plan after installation of all finishes and completion of building cleaning but before occupancy. |
| 1 | | | C | Credit 4.1 | Low-Emitting Materials: Adhesives & Sealants | 1 | Webcor | All adhesives and sealants used on the interior of the building (i.e. inside of the weatherproofing system and applied on-site) must comply with the following requirements as applicable to the project scope. |
| 1 | | | C | Credit 4.2 | Low-Emitting Materials: Paints & Coatings | 1 | Webcor | Paints and coatings used on the interior of the building (i.e., inside of the weatherproofing system and applied onsite) must comply with the following criteria as applicable to the project scope. |
| 1 | | | C | Credit 4.3 | Low-Emitting Materials: Flooring Systems | 1 | Webcor | |
| 1 | | | C | Credit 4.4 | Low-Emitting Materials: Composite Wood & Agrifiber Products | 1 | Webcor | Composite wood and agrifiber products used on the interior of the building (i.e. inside the weatherproofing system) must contain no added urea-formaldehyde resins. |
| | 1 | | D | Credit 5 | Indoor Chemical & Pollutant Source Control | 1 | HOK / Glumac | Design to minimize and control the entry of pollutants into buildings and later cross-contamination of regularly occupied areas. |
| | 1 | | D | Credit 6 | Controllability of Systems: Thermal Comfort | 1 | Glumac | Provide individual comfort controls for 50% (minimum) of the building to meet individual needs and preferences. |
| | 1 | | D | Credit 6 | Controllability of Systems: Lighting | 1 | Glumac | Provide individual comfort controls for 90% (minimum) of the building to meet individual needs and preferences. |
| 1 | | | D | Credit 7 | Thermal Comfort: Design | 1 | Glumac | Design heating, ventilating and air conditioning (HVAC) system and the building envelope to meet the requirements of ASHRAE Standard 55-2004. |
| 1 | | | D | Credit 7 | Thermal Comfort: Verification | 1 | HOK/DJC | Design heating, ventilating and air conditioning (HVAC) system and the building envelope to meet the requirements of ASHRAE Standard 55-2004. |
| | 1 | | D | Credit 8.2 | Daylight & Views: Daylight | 1 | HOK | |
| | 1 | | D | Credit 8.2 | Daylight & Views: Views | 1 | HOK | |
| 10 | 5 | 0 | | | 12 Points Available | 15 | | |

| | | | | | | | | |
|--|---|---|---|-------------|--|---|-----------|---|
| Innovation & Design Process | | | | | | | | |
| 1 | | | C | Credit 1.1 | Innovation in Design: Education Program | 1 | HOK / DJC | Potential Case Study and Signage; Alternative - Site Assessment |
| 1 | | | D | Credit 1.2 | Reduced Mercury in Lamps (EBOM MRC4) | 1 | Glumac | Lamp information would need to be added to Tenant Lease Agrmt. |
| 1 | | | D | Credit 1.3 | Innovation- Transportation Demand Management Plan | 1 | DJC | Provide TDM Plan |
| 1 | | | D | Credit 1.4 | Innovation in Design: Construction Waste Management (95%) Exemplary Perf | 1 | Webcor | Recycle and/or salvage nonhazardous construction and demolition debris. Develop and implement a construction waste management plan.Dirt from the site to be used at the adjacent site for fill. |
| 1 | | | C | Credit 1.5 | Innovation in Design: Recycled Content (30%) Exemplary Perf | 1 | Webcor | Use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the pre consumer content contributes to 30% of the total value of materials. |
| | | | C | Credit Alt. | Pilot Credit: Walkable Project Site | 1 | | |
| 1 | | | C | Credit 2 | LEED Accredited Professional | 1 | HOK | |
| 6 | 0 | 0 | | | 6 Points Available | 6 | | |

| | | | | | | | | |
|--------------------------|---|---|---|----------|----------------------------|---|--|-------------------------|
| Regional Priority | | | | | | | | |
| | 1 | | D | Credit 1 | Regional Priority: SSc5.2 | 1 | | Refer to credit SSc5.2 |
| 1 | | | D | Credit 1 | RP: WEc2 | 1 | | Refer to credit WEc2 |
| 1 | | | D | Credit 1 | RP: WEc3 (40%) | 1 | | Refer to credit WEc3 |
| | 1 | | D | Credit 1 | RP: EAc2 | 1 | | Refer to credit EAc2 |
| | | 1 | D | Credit 1 | RP: MRC1 Building Reuse | 1 | | Refer to credit MRC1 |
| | 1 | | D | Credit 1 | Regional Priority: IEQc8.1 | 1 | | Refer to credit IEQc8.1 |
| 2 | 3 | 1 | | | 4 Points Available | 4 | | |

| | | | | | | | | |
|---|----|----|--|--|-------|-----|--|--|
| 69 | 27 | 10 | | | Total | 110 | | |
| Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80 points and above | | | | | | | | |



Project Name: Millbrae Serra Station - Office
 Project Number: 16.04012.00

Date: 1/31/2018
 Phase: Design

Design submission:
 Construction submission:

LEED-CS 2009 LEED Project Checklist (Project Target - GOLD)

| Prerequisite | Yes | Maybe | No | Design / Construction | Available Points | Responsible Party | LEED Credit Requirements | Meeting Notes and Action Items | Documentation/ Credit Confirmation Due Date |
|--------------|-----|-------|----|-----------------------|---------------------------------|-------------------|---|---|---|
| Y | | | | Plf1 | Minimum Program Requirements | HOK / DJC | Must Comply with Minimum Program Requirements. Commit to Sharing Whole-Building Energy and Water Usage Data | Create Energy Star Portfolio Manager accounts; Report energy & water data on a monthly basis for 5 years. Owner signature needed. | |
| Y | | | | Plf2 | Project Summary Details | HOK / Glumac | Building and Site Area Site Characteristics Energy & Water Sources Budget | Verify building size, site areas, parking, and budget, LEED boundary. | |
| Y | | | | Plf3 | Occupant and Usage Data | HOK / Glumac | Space Usage Information | Verify space usage, occupancy. Verify that no space is unconditioned. | |
| Y | | | | Plf4 | Schedule and Overview Documents | HOK / Glumac | Provide Mechanical Schedules. Confirmed the intent to use binding Lease / Sales Agreement | Schedule dates need to be updated, mechanical schedule needed, LEED boundary needs to be demarcated on plan. | |
| Y | | | | Plf5 | Building System Control | Glumac | Identify the division of work between the base building and tenant work. Describe project HVAC, lighting, electrical include all base building systems and controls | Provide MEP narrative. | |

Sustainable Sites

| Y | | | | C | Prereq 1 | Construction Activity Pollution Prevention | Webcor | | Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. | |
|----|---|---|--|---|------------|---|--------|-----------|---|--|
| 1 | | | | D | Credit 1 | Site Selection | 1 | HOK | Do not develop buildings, hardscape, roads or parking areas on portions of sites that meet any of the following criteria. | |
| 5 | | | | D | Credit 2 | Development Density & Community Connectivity | 5 | HOK | Document 10 Basic Services within 1/2 mile distance. Salon, grocery stores, bank, restaurants, school, pharmacy | |
| | | 1 | | D | Credit 3 | Brownfield Redevelopment | 1 | BKF | Verify bioremediation needs. 01/24 - Per phase II ESA, no contaminants found on site | |
| 6 | | | | D | Credit 4.1 | Alternative Transportation:Public Transportation Access | 6 | HOK | Document Rail and Bus Routes. | |
| 2 | | | | D | Credit 4.2 | Alternative Transportation:Bicycle Storage & Changing Rooms | 2 | HOK | - Showers and changing for Staff (FTE) - "#" bike racks calculated for all users (staff & retail customers) Credit Upload - Plan showing shower/chng rms and bike rack locations Verify rack or shower totals or location. | |
| 3 | | | | D | Credit 4.3 | Alternative Transportation:Low Emitting & Fuel Efficient Vehicles | 3 | HOK | Provide preferred parking for low-emitting and fuel-efficient vehicles for 5% of the total vehicle parking capacity of the site. OR Install alternative-fuel fueling stations for 3% of the total vehicle parking capacity of the site. Liquid or gaseous fueling facilities must be separately ventilated or located outdoors. | |
| | 2 | | | D | Credit 4.4 | Alternative Transportation:Parking Capacity | 2 | HOK | Size parking capacity must meet but not exceed minimum local zoning requirements. Per the kick-off meeting- 50 more parking spaces provided then the minimum required. 01/24- Parking counts have reduced, credit to be confirmed. | |
| | | 1 | | C | Credit 5.1 | Site Development: Protect or Restore Habitat | 1 | HOK / BKF | Limit all site disturbance to the following parameters: OR Restore or protect a minimum of 50% of the site (excluding the building footprint) or 20% of the total site area (including building footprint), whichever is greater. 01/24- Given the building footprint, credit difficult to achieve | |
| | 1 | | | D | Credit 5.2 | Site Development: Maximize Open Space (RP) | 1 | HOK / BKF | Provide vegetated open space equal to 20% of the project's site area. 01/24- Including Green roofs, credit possible to achieve, team to confirm calculations. | |
| | | 1 | | D | Credit 6.1 | Stormwater Design: Quantity Control | 1 | BKF | Implement a stormwater management plan that prevents the post-development peak discharge rate and quantity from exceeding the predevelopment peak discharge rate and quantity for the 1- and 2-year 24-hour design storms. | |
| 1 | | | | D | Credit 6.2 | Stormwater Design: Quality Control | 1 | BKF | Implement a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the average annual rainfall1 using acceptable best management practices (BMPs). | |
| 1 | | | | C | Credit 7.1 | Heat Island Effect: Non-Roof | 1 | HOK | Minimum SRI 29. All parking is under cover. | |
| 1 | | | | D | Credit 7.2 | Heat Island Effect: Roof | 1 | HOK | Minimum SRI 78 | |
| | 1 | | | D | Credit 8 | Light Pollution Reduction | 1 | HOK | | |
| 1 | | | | D | Credit 9 | Tenant Design & Construction Guidelines | 1 | DJC / HOK | Publish an illustrated document that provides tenants with the following design and construction information: | |
| 21 | 4 | 3 | | | | 28 Points Available | 28 | | | |

Water Efficiency

| | | | | | | | | | | |
|---|---|---|---|---|----------|---|----|-----------------------|---|---|
| Y | | | | D | Prereq 1 | Water Use Reduction | | Glumac | GBCI - Include retail fixtures in the LEED template calculation at the LEED baseline usage or per 2016 California Plumbing Code (LEED alternative compliance) if better water use reduction can be demonstrated compared to LEED baseline | Employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation). |
| | 2 | 2 | | D | Credit 1 | Water Efficient Landscaping | 4 | HOK / BKF | | Reduce potable water use by 50% or 100%. Purple pipe infrastructure from the city, if available 01/24- Team considering storm-water treatment on-site, recycled water to be used for irrigation and flushing toilets |
| | 2 | | | D | Credit 2 | Innovative Wastewater Technologies | 2 | BKF / Putman / Glumac | | Reduce potable water use for building sewage conveyance by 50% through the use of water-conserving fixtures; OR treat 50% of wastewater on-site to tertiary standards. 01/24- Team considering storm-water treatment on-site, recycled water to be used for irrigation and flushing toilets. |
| | 4 | | | D | Credit 3 | Water Use Reduction (30% = 2 Points; 35% = 3 Points; 40% = 4 Points) (RP) | 4 | Glumac | GBCI - Include retail fixtures in the LEED template calculation at the LEED baseline usage or per 2016 California Plumbing Code (LEED alternative compliance) if better water use reduction can be demonstrated compared to LEED baseline | Employ strategies that in aggregate use 40% less water than the water use baseline calculated for the building (not including irrigation). |
| | 8 | 2 | 0 | | | 10 Points Available | 10 | | | |

Energy & Atmosphere

| | | | | | | | | | | |
|---|----|----|---|---|------------|--|----|--------|--|---|
| Y | | | | C | Prereq 1 | Fundamental Commissioning of the Building Energy Systems | | CxA | | Commissioning Activities. 1/24- Owner to contract commissioning agent. |
| Y | | | | D | Prereq 2 | Minimum Energy Performance | | Glumac | | Demonstrate a 10% improvement in the proposed building performance rating compared with the baseline building performance rating. Calculate the baseline building performance rating according to the building performance rating method in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 (with errata but without addenda1) using a computer simulation model for the whole building project. |
| Y | | | | D | Prereq 3 | Fundamental Refrigerant Management | | Glumac | Must include HVAC&R equipment used in all spaces and the refrigerant used on credit template. "Project team does not anticipate any future tenant work impacting the ability to meet the prerequisite" | Zero use of chlorofluorocarbon (CFC)-based refrigerants in new base building heating, ventilating, air conditioning and refrigeration (HVAC&R) systems. |
| | 12 | 9 | | D | Credit 1 | Optimize Energy Performance | 21 | Glumac | no uploads (all done in EAp2) | See EAp2. Assume 35% reduction as minimum. 01/24- Glumac's preliminary estimate is atleast 30% energy reduction compared to Title 24-2005/ASHRAE 90.1 2007. |
| | | 4 | | D | Credit 2 | On-Site Renewable Energy (RP) | 4 | Glumac | | ACP: Power Purchase Agreement - Solar Shares |
| | 2 | | | C | Credit 3 | Enhanced Commissioning | 2 | CxA | | Additional commissioning process activities |
| | | 2 | | D | Credit 4 | Enhanced Refrigerant Management | 2 | Glumac | | 01/24- Glumac to confirm achievability after mechanical systems are decided. |
| | 3 | | | D | Credit 5.1 | Measurement & Verification: Base Building | 3 | TBD | | Develop and implement a measurement and verification (M&V) plan consistent with Option D: Calibrated Simulation 01/24- Owner interested in pursuing Measurement and Verification, Energy modeler/CXA to be contracted to administer an M&V plan. |
| | 3 | | | D | Credit 5.2 | Measurement & Verification: Tenant Sub-metering | 3 | TBD | | Include a centrally monitored electronic metering network in the base building design that is capable of being expanded to accommodate the future tenant submetering. 01/24- Owner interested in pursuing Measurement and Verification, Energy modeler/CXA to be contracted to administer an M&V plan. |
| | | 2 | | C | Credit 6 | Green Power | 2 | HOK | | Confirm cost estimate of 3pts (70%/2yr contract). |
| | 20 | 17 | 0 | | | 37 Points Available | 37 | | | |

Materials & Resources

| | | | | | | | | | | |
|---|---|--|---|---|----------|--|---|--------|--|--|
| Y | | | | D | Prereq 1 | Storage & Collection of Recyclables | | HOK | Should consider allocation of collection points for all tenant spaces. | Provide an easily-accessible dedicated area or areas that for the collection and storage of materials for recycling for the entire building. |
| | | | 5 | C | Credit 1 | Building Reuse: Maintain Existing Walls, Floors & Roof (25% = 1 Point; 33% = 2 Points; 42% = 3 Points; 50% = 4 Points; 75% = 5 Points) | 5 | | | |
| | 2 | | | C | Credit 2 | Construction Waste Management (50% = 1 Point, 75% = 2 Points) | 2 | Webcor | | Recycle and/or salvage nonhazardous construction and demolition debris. Develop and implement a construction waste management plan. Dirt from the site to be used at the adjacent site for fill. |
| | | | 1 | C | Credit 3 | Materials Reuse | 1 | | | Use salvaged, refurbished or reused materials, the sum of which constitutes at least 5%, based on cost, of the total value of materials on the project. |
| | 2 | | | C | Credit 4 | Recycled Content (10% = 1 Point; 20% = 2 Points) | 2 | Webcor | | Use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. |
| | 2 | | | C | Credit 5 | Regional Materials (10% = 1 Point; 20% = 2 Points) | 2 | Webcor | | Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value. |

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|---|--|--|--|---|----------|----------------|---|--------|--|---|
| 1 | | | | C | Credit 6 | Certified Wood | 1 | Webcor | | Use a minimum of 50% (based on cost) of wood-based materials and products that are certified in accordance with the Forest Stewardship Council's principles and criteria, for wood building components. |
|---|--|--|--|---|----------|----------------|---|--------|--|---|

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| 7 | 0 | 6 | | | 13 Points Available | 13 | | | | |
|---|---|---|--|--|---------------------|----|--|--|--|--|

Indoor Environmental Quality

| | | | | | | | | | | |
|---|--|--|--|---|----------|---|--|-----------|--|--|
| Y | | | | D | Prereq 1 | Minimum IAQ Performance | | Glumac | | Meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda1) |
| Y | | | | D | Prereq 2 | Environmental Tobacco Smoke (ETS) Control | | HOK / DJC | | Prohibit smoking in the building. Prohibit on-property smoking within 25 feet of entries, outdoor air intakes and operable windows. |

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|---|---|--|--|---|------------|---|---|--------------|--|---|
| 1 | | | | D | Credit 1 | Outdoor Air Delivery Monitoring | 1 | Glumac | | Install permanent monitoring systems to ensure that ventilation systems maintain design minimum requirements. |
| 1 | | | | D | Credit 2 | Increased Ventilation | 1 | Glumac | | Increase breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by ASHRAE Standard 62.1-2007. |
| 1 | | | | C | Credit 3 | Construction IAQ Management Plan: During Construction | 1 | Webcor | | Develop and implement an IAQ management plan after installation of all finishes and completion of building cleaning but before occupancy. |
| 1 | | | | C | Credit 4.1 | Low-Emitting Materials: Adhesives & Sealants | 1 | Webcor | | All adhesives and sealants used on the interior of the building (i.e. inside of the weatherproofing system and applied on-site) must comply with the following requirements as applicable to the project scope. |
| 1 | | | | C | Credit 4.2 | Low-Emitting Materials: Paints & Coatings | 1 | Webcor | | Paints and coatings used on the interior of the building (i.e., inside of the weatherproofing system and applied onsite) must comply with the following criteria as applicable to the project scope. |
| 1 | | | | C | Credit 4.3 | Low-Emitting Materials: Flooring Systems | 1 | Webcor | | |
| 1 | | | | C | Credit 4.4 | Low-Emitting Materials: Composite Wood & Agrifiber Products | 1 | Webcor | | Composite wood and agrifiber products used on the interior of the building (i.e. inside the weatherproofing system) must contain no added urea-formaldehyde resins. |
| | 1 | | | D | Credit 5 | Indoor Chemical & Pollutant Source Control | 1 | HOK / Glumac | | Design to minimize and control the entry of pollutants into buildings and later cross-contamination of regularly occupied areas. |
| | 1 | | | D | Credit 6 | Controllability of Systems: Thermal Comfort | 1 | Glumac | | Provide individual comfort controls for 50% (minimum) of the building to meet individual needs and preferences. |
| 1 | | | | D | Credit 7 | Thermal Comfort: Design | 1 | Glumac | | Design heating, ventilating and air conditioning (HVAC) system and the building envelope to meet the requirements of ASHRAE Standard 55-2004, |
| | 1 | | | D | Credit 8.1 | Daylight & Views: Daylight (75% = 1 Point) (RP) | 1 | HOK | | |
| | 1 | | | D | Credit 8.2 | Daylight & Views: Views | 1 | HOK | | |

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| 8 | 4 | 0 | | | 12 Points Available | 12 | | | | |
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Innovation & Design Process

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|---|--|--|--|---|-------------|--|---|-----------|--|---|
| 1 | | | | C | Credit 1.1 | Innovation in Design: Education Program | 1 | HOK / DJC | | Potential Case Study and Signage; Alternative - Site Assessment |
| 1 | | | | D | Credit 1.2 | Reduced Mercury in Lamps (EBOM MRC4) | 1 | Glumac | | Lamp information would need to be added to Tenant Lease Agrmt. |
| 1 | | | | D | Credit 1.3 | Innovation- Transport Demand management Plan | 1 | DJC | | Provide TDM Plan |
| 1 | | | | D | Credit 1.4 | Innovation in Design: Construction Waste Management (95%) Exemplary Perf | | Webcor | | Recycle and/or salvage nonhazardous construction and demolition debris. Develop and implement a construction waste management plan. Dirt from the site to be used at the adjacent site for fill. |
| 1 | | | | C | Credit 1.5 | Innovation in Design: Recycled Content (30%) Exemplary Perf | 1 | Webcor | | Use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 30%, based on cost, of the total value of the materials in the project. |
| | | | | C | Credit Alt. | Pilot Credit: Walkable Project Site | 1 | | | |
| 1 | | | | C | Credit 2 | LEED Accredited Professional | 1 | HOK | | |

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| 6 | 0 | 0 | | | 6 Points Available | 6 | | | | |
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Regional Priority

| | | | | | | | | | | |
|---|---|---|--|---|----------|----------------------------|---|--|--|-------------------------|
| | 1 | | | D | Credit 1 | Regional Priority: SSc5.2 | 1 | | | Refer to credit SSc5.2 |
| 1 | | | | D | Credit 1 | RP: WEc2 | 1 | | | Refer to credit WEc2 |
| 1 | | | | D | Credit 1 | RP: WEc3 (40%) | 1 | | | Refer to credit WEc3 |
| | 1 | | | D | Credit 1 | RP: EAc2 | 1 | | | Refer to credit EAc2 |
| | | 1 | | D | Credit 1 | RP: MRC1 Building Reuse | | | | Refer to credit MRC1 |
| | | 1 | | D | Credit 1 | Regional Priority: IEQc8.1 | | | | Refer to credit IEQc8.1 |

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| 2 | 3 | 1 | | | 4 Points Available | 4 | | | | |
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72 30 10

Total 110

Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80 points and above