

Operations

Integrated Operations & Education

Title	Intent	Credit Goals	Source
<p>IO Prereq 1 Integrated Operations & Maintenance Process</p>	<p>Demonstrate a cross discipline approach in Operations and Maintenance decision-making and implementation to ensure safe, healthful, environmentally sensitive methods and materials.</p>	<ul style="list-style-type: none"> • Develop and implement a functional cross discipline process for decision-making regarding safe, healthful and environmentally sensitive operations and maintenance and encourage continuous improvement. • Define key organizational stakeholders and involve them in ongoing cross discipline decision-making process(es) for operations and maintenance. • Create a Health Mission Statement that establishes the values and goals for operations and maintenance procedures and protocols, encouraging continuous improvement. 	<p>New to GGHC</p>
<p>IO 1 Education: Staff, Patient and Community Environmental Sustainability Education</p>	<p>Create awareness among staff, patients, visitors, service providers, vendors and the community of environmental sustainability and reinforce its benefits to human health.</p>	<p>Upon hire and at a minimum annually, educate all staff (including, but not limited to, physicians, nurses, interns, nursing and allied health students, board members, etc.) on their roles and responsibilities regarding the facility's environmental sustainability initiatives (as defined by IO Pre-requisite 1) and the connection to human health and environmental stewardship. Train staff to report relevant activities using the responsibility matrix outlined in Suggested Documentation under IO Prerequisite 1: Integrated Operations & Maintenance Process. <i>Note: In many cases, education on environmental sustainability initiatives and the connection to human health and the environment can be integrated into existing training programs.</i></p> <ul style="list-style-type: none"> • Annually present a formal written report on progress in environmental programs and connection to human health and the environment to the facility's Board of Directors and other senior level leadership. <p>AND</p> <p>Establish a staff education program or programs incorporating at least one of the following criteria:</p> <ul style="list-style-type: none"> • Educate staff on environmental programs and impact on human health and the environment through regular reports in the staff newsletter (minimum 4 per year) or a minimum of two dedicated staff newsletters annually. • Develop and periodically update (minimum twice a year) an environmental poster campaign on facility environmental programs and their connection to human health and the environment targeted to staff within the facility. • Annually recognize staff participation and leadership in environmental programs. <p>AND</p> <p>Establish a communications program or programs to educate patients, visitors, and the surrounding community incorporating at least one of the following criteria:</p> <ul style="list-style-type: none"> • Develop and implement an active education program targeted to patients, visitors, and the public on facility environmental initiatives, outcomes, and the initiatives' connection to human health and the environment. • Include reporting on the facility's progress in environmental programs, including associated health benefits to the surrounding community, in the annual report. 	<p>New to GGHC</p>

Sustainable Sites Management

Title	Intent	Credit Goals	Source
SSM 1.1 Site Management: Building Exterior & Hardscape Management Plan	Encourage environmentally-sensitive building exterior hardscape management practices that provide a clean, well-maintained and safe buildings exterior, while supporting high performance building operations.	<ul style="list-style-type: none"> Develop and implement an environmentally-sensitive, low-impact building exterior and hardscape management plan that helps preserve surrounding ecological integrity. The plan must employ best management practices that significantly reduce the use of harmful chemicals, energy waste, water waste, air pollution, solid waste and/or chemical runoff (e.g., gasoline, oil, antifreeze, salts) compared to standard practices, whether direct-purchase or contracted services. The plan must address all of the following operational elements that occur on the building and grounds, as applicable: <ul style="list-style-type: none"> Outdoor maintenance equipment Green cleaning and maintenance products, practices, and materials Least toxic snow removal strategies 	Modified from LEED EB 2008 SS c2: Building Exterior & Hardscape Management Plan.
SSM 1.2 Site Management: Integrated Pest Management, Erosion Control & Landscape Management Plan	Preserve ecological integrity, enhance natural diversity, and protect wildlife while supporting high performance building operations and integration into surrounding landscapes.	<ul style="list-style-type: none"> Develop and implement an environmentally-sensitive erosion control and landscape management plan for the site's natural components. The plan must employ best management practices that significantly reduce the use of harmful chemicals, energy waste, water waste, air pollution, solid waste, and/or chemical runoff (e.g., gasoline, oil, antifreeze, salts) compared to standard practices, whether direct-purchase or contracted services. The plan must address the following operational elements at a minimum: <ul style="list-style-type: none"> Outdoor Integrated Pest Management Green landscape management actions Native and/or drought-tolerant plants Erosion and sedimentation control Maintenance of landscape technologies Diver landscape waste 	Modified from LEED EB 2008 SS c3: Integrated Pest Management Erosion Control and Landscape Management Plan.
SSM 2.1 Reduced Site Disturbance: Protect or Restore Open Space or Habitat	Conserve existing natural site areas and restore damaged site areas to provide habitat and promote biodiversity.	<ul style="list-style-type: none"> Protect or restore natural habitat area as follows: $\text{Natural Habitat Area Required} = (\text{Site Area}) \cdot (.15 - \text{Site Size Factor}) \div (\text{Floor Space Ratio})$ Improving and/or maintaining off-site areas with native or non-invasive adapted plants can contribute toward earning GGHC SSM Credit 2.1. Every 2 square feet off-site will be counted as 1 square foot on-site. Off-site areas must be documented in a contract with the owner of the off-site area that specifies the required improvement and maintenance of the off-site area. 	Modified from GGHC v2.2 SS c5.1 and LEED EB 2008 SS c5: Reduced Site Disturbance: Protect or Restore Open Space.
SSM 2.2 Reduced Site Disturbance: Structured Parking	Conserve existing natural site areas and restore damaged site areas to provide habitat and promote biodiversity.	<ul style="list-style-type: none"> Achieve SSM Credit 2.1. <p>AND</p> <ul style="list-style-type: none"> Ensure that minimum 50% of total installed parking spaces meet one or more of the following criteria: <ul style="list-style-type: none"> Onsite structured parking Off-site structured parking Shared existing off-site surface parking 	Modified from GGHC v2.2 SS Credit 5.3: Site Development: Structured Parking

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<p>SSM 3 Stormwater Management</p>	<p>Limit the disruption of natural hydrology by the building and grounds.</p>	<ul style="list-style-type: none"> Develop and implement a stormwater management plan that infiltrates, collects and reuses, or evapotranspirates runoff from 15% of the rainfall falling on the whole project site: <ul style="list-style-type: none"> During an average weather year, and During the two-year, 24-hour design storm Implement an annual inspection program of all stormwater management facilities to confirm continued performance. Perform all routine required maintenance, necessary repairs, or stabilization within 60 days of inspection. 	<p>Aligned with LEED EB 2008 SS c6: Stormwater Management</p>
<p>SSM 4.1 Heat Island Reduction: Non-Roof</p>	<p>Reduce heat islands (temperature differences between developed and undeveloped areas) to minimize impact on microclimate and human wildlife habitat.</p>	<p>OPTION A Use any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots):</p> <ul style="list-style-type: none"> Shade from existing canopy or within 5 years of landscape installation, where landscaping (trees) must already be in place at the time of credit achievement. Shade from structures fully covered by solar photovoltaic panels. Shade from architectural devices or structures that have a Solar Reflectance Index (SRI) of at least 29. Implement a maintenance program that ensures these surfaces are cleaned at least every 2 years to maintain good reflectance. Light colored paving materials with an SRI of at least 29. Implement a maintenance program that ensures these surfaces are cleaned at least every 2 years to maintain good reflectance. Open grid pavement system (at least 50% pervious). <p>OR</p> <p>OPTION B Place a minimum of 50% of parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29. Implement a maintenance program that ensures all SRI surfaces are cleaned at least every 2 years to maintain good reflectance. The top parking level of a multi-level parking structure is included in the total parking spaces calculation, but is not considered a roof and is not required to be an SRI surface.</p>	<p>Aligned with LEED EB 2008 SS c7.1: Heat Island Reduction: Non-Roof</p>
<p>SSM 4.2 Heat Island Reduction: Roof</p>	<p>Reduce heat islands (temperature differences between developed and undeveloped areas) to minimize impact on microclimate and human wildlife habitat.</p>	<p>OPTION A</p> <ul style="list-style-type: none"> Install and maintain roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values in the table below for a minimum of 75% of the roof surface. If more than 75% of the roof surface is covered with the SRI material, the SRI value may be lower than the required value if the resulting area-weighted equivalent SRI performance is at least as high as having the required value on 75% of the surface. Implement a maintenance program that ensures all SRI surfaces are cleaned at least every 2 years to maintain good reflectance. <p>OR</p> <p>OPTION B</p> <ul style="list-style-type: none"> Withstanding a structural verification, install and maintain a vegetated roof for at least 50% of the roof area. Implement a vegetated roof maintenance program in accordance with design and installation instructions. <p>OR</p>	<p>Modified from LEED EB 2008 SS c7.2: Heat Island Reduction: Roof.</p>

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		<p>OPTION C</p> <ul style="list-style-type: none"> Install and maintain high albedo and vegetated roof surfaces that, in combination, meet the following criteria: $(\text{Area of SRI Roof}/0.75) + (\text{Area of vegetated roof}/0.5) \geq \text{Total Roof Area}$ 	
<p>SSM 5.1 Connection to the Natural World: Outdoor Places of Respite</p>	<p>Provide outdoor places of respite on the health care campus to connect health care patients, staff, and visitors to the health benefits of the natural environment.</p>	<p>Provide patient, staff, and visitor accessible outdoor places of respite equal to 5% of the net usable program area. Qualifying areas are defined below. <i>Note: For the purposes of this credit, net usable program area refers to usable areas within the scope of the project with a programmed function. It does not include closets or mechanical rooms.</i></p> <ul style="list-style-type: none"> Provide additional dedicated outdoor place(s) of respite for staff equal to 2% of the net usable program area. Exterior places of respite shall be subject to occupancy, located within 200 feet of a building entrance or access point, and must be spaces where no medical intervention or direct medical care is delivered. Qualifying areas shall be open to fresh air, the sky and the natural elements, including seasonal weather. 	<p>Aligned with GGHC v2.2/LEED HC SS c9.1: Connection to the Natural World: Places of Respite</p>
<p>SSM 5.2 Connection to the Natural World: Exterior Access for Patients</p>	<p>Provide outdoor places of respite on the health care campus to connect health care patients, staff, and visitors to the health benefits of the natural environment</p>	<ul style="list-style-type: none"> Provide direct access to an exterior courtyard, terrace or balcony with a minimum area of five square feet/patient served for 75% of all inpatients AND 75% of qualifying outpatients with clinical length of stay (LOS) greater than four hours. Vegetation (including planters) shall use either non-potable water for irrigation or a high-efficiency irrigation system. 	<p>Modified from GGHC v2.2/LEED HC SS c9.2: Connection to the Natural World: Exterior Access for Patients.</p>

Transportation Operations

Title	Intent	Credit Goals	Source
TO 1.1-1.4 Alternative Transportation: Commuting	Reduce pollution and land development impacts from conventional single-occupant vehicles used for commuting.	<ul style="list-style-type: none"> • Document the percentage of commuting round trips made by Full Time Equivalent (FTE) and contract peak period staff using transportation means other than single-occupant, conventionally-powered, conventionally-fueled vehicles. <ul style="list-style-type: none"> ▪ TO c1.1 (1 pt): 10% ▪ TO c1.2 (2 pts): 25% ▪ TO c1.3 (3 pts): 50% ▪ TO c1.4 (4 pts): 75% • Provide and maintain a building occupant conveyance program (shuttle-link) for buildings more than 1/2 mile from commuter rail or subway and more than 1/4 mile from established bus routes. Connect transit stops within ½ mile of the health care facility to main entrances using sidewalks, high-visibility crosswalks, and signage. • Provide preferred parking for vehicles used for carpools/vanpools and for low-emitting, fuel-efficient vehicles. 	Modified from LEED EB 2008 SS c4.1-4.4: Alternative Commuting Transportation
TO 1.5 Alternative Transportation: Allowances	Reduce pollution and land development impacts from conventional single-occupant vehicles used for commuting.	<ul style="list-style-type: none"> • Offer a financial incentive (also known as parking cash-out), other discount program, or non-monetary benefit equivalent to subsidizing on-site parking for all Full Time Equivalent (FTE) and contract peak period staff for alternative modes of travel. For the purposes of this credit, alternative modes of travel may include, but are not limited to: walking; public transit; bicycles or other human-powered means; carpools; vanpools; low-emission; fuel-efficient or alternative fuel vehicles; compressed work weeks; and, telecommuting. 	New to GGHC

Facilities Management

Title	Intent	Credit Goals	Source
FM Prereq 1 Energy Efficiency Best Management Practices: Planning, Documentation & Opportunity Assessment	Promote continuity of information to ensure that energy-efficient operating strategies are maintained and provide a foundation for training and system analysis.	<ul style="list-style-type: none"> Develop and annually revise a Building Operating Plan that provides details on how the building is to be operated and maintained. Develop and annually revise a Systems Narrative that provides a brief description of the mechanical and electrical systems, equipment, and envelope systems in the building with a corresponding preventive maintenance plan for all equipment covered by the Narrative. Document and annually review the current Sequence of Operations for the building. Create and annually review a narrative of the preventative maintenance plan for equipment described in the Systems Narrative and document the preventative maintenance schedule over a minimum twelve-month period. Annually conduct an energy audit that meets the requirements of ASHRAE Level I – Walk-Through Assessment. 	Modified from LEED EB 2008 EA Prereq 1: Energy Efficiency Best Management Practices: Planning, Documentation & Opportunity Assessment
FM Prereq 2 Minimum Building Energy Efficiency Performance	Establish the minimum level of energy efficiency for the building and systems.	<p>OPTION 1</p> <ul style="list-style-type: none"> For building types rated by Energy Star®, annually demonstrate that the facility has achieved a score of at least 69 utilizing the EPA Energy Star® Portfolio Manager Benchmarking Tool. <p>OR</p> <ul style="list-style-type: none"> For building types not rated by Energy Star, annually demonstrate that the facility has achieved an EUI of 19% above industry average in KBtu/ft²/year. <i>Note: Option 1 automatically awards projects 2 points in GGHC Facilities Management Credit 1: Optimize Energy Performance.</i> <p>OR</p> <p>OPTION 2</p> <ul style="list-style-type: none"> Facilities with Energy Star scores below 69 (or, if a non-rated facility, with an EUI that does NOT achieve 19% above industry average) shall improve energy performance by at least 7% per year on average over the improvement period until they reach the threshold listed under Option 1. <p>AND</p> <ul style="list-style-type: none"> Verify energy performance ratings through certification by a licensed professional engineer, either on staff or third party. 	Modified from LEED EB 2008 EA Prereq 2: Minimum Energy Efficiency Performance
FM Prereq 3 Refrigerant Management - Ozone Protection	Reduce stratospheric ozone depletion.	<ul style="list-style-type: none"> Zero use of Chlorofluorocarbon (CFC)-based refrigerants in new and replacement (HVAC&R) base building equipment. If CFC-based refrigerant containing HVAC&R equipment is maintained in the building, implement a phase-out plan that reduces annual leakage to 5% or less using EPA Clean Air Act, Title VI, Rule 608 procedures governing refrigerant management and reporting, and reduces the total leakage over the remaining life of the unit to less than 30% of its refrigerant charge. Small HVAC&R units (defined as containing less than 	Modified from LEED EB 2008 EA Prereq 3: Refrigerant Management - Ozone Protection

		0.5 lbs of refrigerant), and other equipment that contains less than 0.5 lbs of refrigerant, are not considered part of the "base building" system and are not subject to the requirements of this prerequisite.	
FM Prereq 4 Minimum Indoor Plumbing Fixture and Fitting Efficiency	Reduce indoor fixture and fitting water use within buildings to reduce the burdens on potable water supply and wastewater systems.	<ul style="list-style-type: none"> Reduce potable water usage of indoor plumbing fixtures and fittings to a level equal to or below the facility baseline, calculated assuming 100% of the building's indoor plumbing fixture and fitting count were outfitted with fixtures and fittings meeting the Uniform Plumbing Code 2006 (UPC) or the International Plumbing Code (IPC) 2006 fixture and fitting performance requirements. Fixtures and fittings included in the calculations for this credit are water closets, urinals, showerheads, faucets, faucet replacement aerators and metering faucets. The baseline water usage is set depending on the year of substantial completion of the building's indoor plumbing system. Set the baseline as follows: <ul style="list-style-type: none"> Plumbing system substantially completed in 1993 or later throughout the building – 120% of the water usage that would result if all fixtures meet the codes cited above; OR Plumbing system substantially completed before 1993 throughout the building – 160% of the water usage that would result if all fixtures meet the codes cited above. Develop and implement a policy requiring economic assessment of conversion to high-performance plumbing fixtures and fittings as part of any future indoor plumbing renovation. The assessment must account for potential water supply and disposal cost savings and maintenance cost savings. 	Aligned with LEED EB 2008 WE Prereq 1: Minimum Indoor Plumbing Fixture and Fitting Efficiency
FM Prereq 5 Outdoor Air Introduction & Exhaust Systems	Establish minimum indoor air quality (IAQ) performance to enhance indoor air quality in buildings, thus contributing to the health and well-being of the occupants.	<ul style="list-style-type: none"> Modify or maintain each outdoor-air (OA) intake, supply air fan, and/or ventilation distribution system to supply at a minimum, the outdoor air ventilation rate required by ANSI/ASHRAE 62.1-2007 under the Ventilation Rate Procedure under all normal operating conditions or the minimum requirements of the relevant local licensing requirement for ventilation, whichever is more stringent, AND the air quality criteria required by ANSI/ASHRAE 62.1-2007 under all normal operating conditions. Show compliance through measurements taken at the system level (i.e. at the air handler unit). Implement and maintain an HVAC System Maintenance Program that incorporates a reliability centered maintenance approach to ensure the proper operations and maintenance of HVAC components as they relate to outdoor air introduction and exhaust. Meet the EPA Indoor Air Quality (IAQ) guidelines OR Sheet Metal & Air Conditioning Contractor's National Association (SMACNA) Indoor Air Quality Guidelines for Occupied Buildings Under Construction to ensure the proper operations and maintenance of HVAC components as they relate to IAQ. Test and maintain the operation of all building general and local exhaust systems, including but not limited to, bathroom, shower, utility areas, paint shops, print shops, laboratories, kitchen, parking, copy rooms, and large volume shredding exhaust systems. 	Modified from LEED EB 2008 IEQ Prereq 1: Outdoor Air Introduction & Exhaust Systems
FM Prereq 6 Environmental	Prevent exposure of building occupants, indoor surfaces,	<ul style="list-style-type: none"> Prohibit smoking from the campus, including all 	Modified from LEED

Tobacco Smoke (ETS) Control	and systems to Environmental Tobacco Smoke (ETS).	buildings and public outdoor spaces.	EB 2008 IEQ Prereq 2: Environmental Tobacco Smoke Control
FM 1 Optimize Energy Efficiency Performance	Achieve an increased level of energy efficiency performance relative to typical buildings of similar type to reduce environmental and health burdens associated with excessive energy use.	<ul style="list-style-type: none"> • Demonstrate either the EPA Energy Star® score or the Energy Use Intensity (EUI) that the facility has achieved according to the table below over a minimum twelve-months. Utilize the EPA benchmarking system within the Portfolio Manager Benchmarking Tool for building types addressed by Energy Star. • Verify energy performance ratings through certification by a licensed professional engineer or facility manager, either on staff or third party. <p>Note: GGHC FM Prerequisite 2 automatically awards projects 2 points under this credit.</p> <ul style="list-style-type: none"> • Credit 1.1: Energy Star 67 or EUI of 17% • Credit 1.2: Energy Star 69 or EUI of 19% • Credit 1.3: Energy Star 71 or EUI of 21% • Credit 1.4: Energy Star 73 or EUI of 23% • Credit 1.5: Energy Star 75 or EUI of 25% • Credit 1.6: Energy Star 77 or EUI of 27% • Credit 1.7: Energy Star 79 or EUI of 29% • Credit 1.8: Energy Star 81 or EUI of 31% • Credit 1.9: Energy Star 83 or EUI of 33% • Credit 1.10: Energy Star 85 or EUI of 35% • Credit 1.11: Energy Star 87 or EUI of 37% • Credit 1.12: Energy Star 89 or EUI of 39% • Credit 1.13: Energy Star 91 or EUI of 41% • Credit 1.14: Energy Star 93 or EUI of 43% • Credit 1.15: Energy Star 95+ or EUI of 45% 	Modified from LEED EB 2008 EA Credit 1: Optimize Energy Efficiency Performance
FM 2.1-2.5 Potable Water Use Reduction: Total Building Reduction	Maximize indoor potable water use efficiency within buildings to reduce the burden on municipal water supply and wastewater systems.	<ul style="list-style-type: none"> • Ensure no once-through potable water use for interior water features. If potable water is used in interior or exterior water features, it shall be separately metered and the water features' consumption shall be excluded from the numerator of the water reduction calculations outlined in the table below. • Develop and implement strategies and systems that in aggregate produce a percentage reduction of total building potable water use from a facility baseline measured over a minimum one-year period. At least one meter for the overall building water use is required. • Develop potable water use reduction strategies in collaboration with the facility infection control committee to minimize potential infection control risks. <ul style="list-style-type: none"> • Credit 2.1: 10% potable water reduction • Credit 2.2: 20% potable water reduction • Credit 2.3: 30% potable water reduction • Credit 2.4: 40% potable water reduction • Credit 2.5: 50% potable water reduction 	New to GGHC
FM 2.6 Potable Water Use Reduction: Water Efficient Landscaping	Eliminate the use of potable water or other natural surface/subsurface resources available on or near the facility site for landscape irrigation.	<ul style="list-style-type: none"> • Use only captured rainwater, recycled wastewater, recycled greywater, or water treated and conveyed by a public agency specifically for non-potable uses for irrigation. OR • Install landscaping that does not require permanent irrigation systems. Temporary irrigation systems used for plant establishment are allowed only if removed within 	Modified from LEED EB 2008 WE c3: Water Efficient Landscaping

		<p>one year of installation and plants are weaned in accordance with design and installation instructions.</p> <p>AND</p> <ul style="list-style-type: none"> In urban settings, where there is no lawn or landscaping, this credit can be earned by eliminating the use of potable water for watering any roof and/or courtyard garden space or outdoor planters, provided that the planters and/or garden space cover at least 5% of the building site area. <p><i>Note: For the purposes of this credit, potable water shall be defined in accordance with health regulations having jurisdiction.</i></p> <p><i>Note: If authorities having jurisdiction (e.g., Infection Control) do not permit irrigation using non-potable water sources, vegetated areas in accordance with SSM Credit 4.2: Heat Island Effect: Roof; SSM Credit 5.1: Connection to the Natural World: Outdoor Places of Respite; and/or SSM Credit 5.2: Connection to the Natural World: Exterior Access for Patients comply with this credit if they install a high-efficiency irrigation system. For the purposes of this credit, "high-efficiency irrigation systems" are defined as irrigation systems that use minimum 30% less water than conventional sprinkler irrigation. High-efficiency irrigation systems include micro or drip irrigation systems, moisture sensors, clock timers and water-data based controllers.</i></p>	
FM 2.7 Potable Water Use Reduction: Cooling Tower: Chemical Management	Reduce potable water consumption for cooling tower equipment through effective water management and/or use of non-potable make-up water.	<ul style="list-style-type: none"> Develop and implement a water management plan for the cooling tower that addresses chemical treatment, bleed-off, biological control and staff training as it relates to cooling tower maintenance. Improve water efficiency by installing and/or maintaining a conductivity meter and automatic controls to adjust the bleed rate and maintain proper concentration at all times. Employ non-toxic treatment chemicals or chemical-free cooling tower systems that meet NACE International Standard 7K189, "Control Factors in Performance Testing of Nonchemical Water Treatment Devices," 1997, and that demonstrate effectiveness in controlling at minimum, <i>Legionella spp.</i> per the 2003 CDC/HICPAC Guidelines for Environmental Infection Control in Health-Care Facilities. 	Modified from LEED EB 2008 WE c4.1: Cooling Tower: Chemical Management
FM 2.8 Potable Water Use Reduction: Cooling Tower: Non-Potable Water Source Use	Reduce potable water consumption for cooling tower equipment through effective water management and/or use of non-potable make-up water.	<ul style="list-style-type: none"> Use make-up water that consists of at least 50% non-potable water over a minimum one-year period, such as: Develop and implement a measurement program that verifies make-up water quantities used from non-potable sources. 	Modified from LEED EB 2008 WE c4.1: Cooling Tower: Non-Potable Water Source Use
FM 3.1 Existing Building Commissioning: Investigation & Analysis	Through a systematic process, develop an understanding of the operation of the facility's major energy using systems, options for optimizing the building's energy performance and a plan to achieve energy savings.	<ul style="list-style-type: none"> Document the breakdown of energy use in the building. Annually list identified capital improvements that will provide cost-effective energy savings and document the cost benefit analysis associated with each. <p>AND</p> <ul style="list-style-type: none"> Conduct one of the following: <ul style="list-style-type: none"> Commissioning Process OR 	Modified from LEED EB 2008 EA Credit 2.1: Existing Building Commissioning: Investigation &

		<ul style="list-style-type: none"> ASHRAE Level II Energy Audit 	Analysis
FM 3.2 Existing Building Commissioning: Implementation	Implement minor improvements and identify planned capital projects to ensure that the facility's major energy using systems are repaired, operated, and maintained effectively to optimize the buildings' energy performance.	<ul style="list-style-type: none"> Annually develop and evaluate a five-year capital plan for major retrofits or upgrades including implementation of no- or low-cost operational improvements. Provide training in accordance with GGHC IO Credit 1.1: Education: Building Operations & Maintenance Staff for facility management staff at the point of hire and annually that builds awareness and skills in a broad range of sustainable building operations subject matter, including energy efficiency and building, savings and benchmarking, and equipment and systems operation and maintenance. Annually demonstrate the observed and/or anticipated financial costs and benefits of measures that were implemented. Update the building's Building Operating Plan as necessary to reflect any changes in the occupancy schedule, equipment run time schedule, design set points, and lighting levels. 	Modified from LEED EB 2008 EA Credit 2.2: Existing Building Commissioning: Implementation
FM 3.3 Existing Building Commissioning: Ongoing Commissioning	Use commissioning to address constant changes in facility occupancy, usage, maintenance and repair. Make periodic adjustments and reviews of building operating systems and procedures essential for optimal energy efficiency and provided service.	<ul style="list-style-type: none"> Implement an ongoing commissioning program that includes elements of planning, system testing, performance verification, corrective action response, ongoing measurement and documentation to proactively address operating problems. Create and annually revise a written plan that summarizes the overall commissioning cycle for the building by equipment or building system group. The ongoing commissioning cycle shall not exceed 24 months. This plan must include a building equipment list, performance measurement frequency for each equipment item and steps to respond to deviation from expected performance parameters. Track progress of the ongoing commissioning program against a baseline of two years previous to the current year. Update the Building Operating Plan and/or Systems Narrative as necessary to reflect any changes in the occupancy schedule, equipment run time schedule, design set points, lighting levels, or system specifications. 	Aligned with LEED EB 2008 EA Credit 2.1: Existing Building Commissioning: Ongoing Commissioning
FM 4.1 Building Operations & Maintenance: Staff Education	Support appropriate training, monitoring, operations and maintenance for facilities staff and building systems to ensure the facility delivers target building performance goals over the life of the building.	<ul style="list-style-type: none"> Develop and implement a continuing education program for facilities management operations and maintenance staff that provides each staff person with primary building maintenance responsibilities with minimum 8 hours per year of continuing education courses above and beyond licensure requirements on topics covered in the GGHC Facilities Management section such as building systems operations, continuous commissioning, maintenance, energy and water efficient building operations and maintenance practices, and/or achieving sustainable building performance. Qualifying courses shall meet the quality standards for continuing education required by the staff member's licensing board. 	New to GGHC
FM 4.2 Building Operations & Maintenance: Building Systems Maintenance	Support appropriate training, monitoring, operations and maintenance for buildings and building systems to ensure they deliver target building performance goals	<ul style="list-style-type: none"> Establish and maintain a comprehensive best practices equipment preventive maintenance program that provides in-house resources and/or contractual services to deliver maintenance. If operating a new building, require that the operating 	New to GGHC

	over the life of the building.	<p>and maintenance documentation provided to the building owner contain meaningful, appropriate, and system/equipment-specific training materials from the design/construction team explaining the sustainable building goals and anticipated performance.</p> <ul style="list-style-type: none"> Use a formal Computerized Maintenance Management System (CMMS) to track equipment and trigger preventive maintenance, document history, and manage the maintenance program. 	
FM 4.3 Building Operations & Maintenance: Building Systems Monitoring	Provide capacity for ventilation system monitoring to help sustain long-term occupant comfort and well-being.	Install permanent, continuous monitoring systems that provide feedback on ventilation system performance to ensure that ventilation systems maintain minimum outdoor airflow rates under all operating conditions.	Aligned with LEED EB 2008 IEQ c1.2: IAQ Best Management Practices
FM 5.1-5.2 Performance Measurement: System-Level Energy Metering	Provide accurate energy use information to support energy management and identify opportunities for additional energy-saving improvements.	<ul style="list-style-type: none"> Develop a breakdown of energy use in the building, either through GGHC FM Credit 3.1 & 3.2 or by using energy bills, spot metering or other metering to determine the energy consumption of major mechanical systems and other end use applications. This analysis of major energy use categories must have been conducted within the past two years. <p>AND</p> <ul style="list-style-type: none"> Based on the energy use breakdown, employ system-level metering covering the total expected annual energy consumption of the building. Permanent metering and recording is required. All types of submetering are permitted. <ul style="list-style-type: none"> FM Credit 5.1: Demonstrate that system-level metering is in place covering at least 40% of the total expected annual energy consumption of the <u>building</u>. At least one of the largest two energy use categories from the breakdown report must be covered to at least an 80% extent. FM Credit 5.2: Demonstrate that system-level metering is in place covering at least 80% of the total expected annual energy consumption of the <u>building</u>. At least two of the three largest energy use categories from the breakdown report must be covered to at least an 80% extent. 	Aligned with LEED EB 2008 EA c3.2-3.3: Performance Measurement: System Level Metering
FM 5.3 Performance Measurement: Enhanced Water Metering	Measure building and subsystem water performance over time to understand consumption patterns and identify opportunities for additional water savings.	Have in place permanently installed metering devices to measure potable water use, as applicable to the facility. One point is earned for sub-metering that captures 85% of water consumption.	New to GGHC
FM 5.4 Performance Measurement: Emissions Reduction Reporting	Document emission reduction benefits of building efficiency measures.	<ul style="list-style-type: none"> Identify building performance parameters that reduce conventional energy use and emissions, quantify those reductions, and report them to a formal tracking program. Meet all standards of California South Coast Air Quality Management District or local regulations or permit, whichever is more stringent, for all products of combustion. Track and record the significant emission reductions including those delivered by energy efficiency, 	Modified from LEED EB 2008 EA c6: Emission Reduction Reporting

		<p>renewable energy and other building emission reduction actions. Emissions to be tracked may include, but are not limited to: carbon dioxide (CO₂), sulfur dioxide (SO₂), nitrogen oxides (NO_x), mercury (Hg), small particulates (PM_{2.5}), large particulates (PM₁₀), and volatile organic compounds (VOCs).</p> <ul style="list-style-type: none"> • Report the reductions in emissions resulting from these energy efficiency and renewable operations using a third party voluntary reporting/certification program including, but not limited to: EPA Climate Leaders, Energy Star® or WRI/WBCSD protocols. • Retire at least 10% of the emission reductions annually, delivered by the energy efficiency actions through a third party voluntary certification program. <p>AND</p> <ul style="list-style-type: none"> • Develop and implement a review process to upgrade existing equipment to the best technological system of continuous emissions reduction available every five years or when retrofitting or upgrading, whichever comes first. • Utilize biodiesel fuels or other low-emitting fuel (e.g., biodiesel, compressed natural gas or liquid propane) for generators and other diesel equipment, unless replacing fuels will void the equipment warranty. <p>AND</p> <ul style="list-style-type: none"> • Ask the suppliers of goods and services for the building to do the same by implementing the actions listed above annually or at the point of contract renewal. 	
<p>FM 6 IAQ Management: Maintaining Indoor Air Quality</p>	<p>Enhance Indoor Air Quality (IAQ) performance by optimizing practices to prevent the development of indoor air quality problems in buildings, correcting indoor air quality problems when they occur and maintaining the well-being of the occupants.</p>	<ul style="list-style-type: none"> • Develop and implement on an ongoing basis an IAQ management program in accordance with infection control and prevention protocols in the 2003 CDC/HICPAC Guidelines for Environmental Infection Control in Health-Care Facilities AND in accordance with either "A Guide to Managing Indoor Air Quality in Health Care Organizations", Joint Commission, 1997 OR the U.S. EPA document "Indoor Air Quality Building Education and Assessment Model (I-BEAM)," EPA Reference Number 402-C-01-001, December 2002. • Verify that the facility's Indoor Air Quality (IAQ) management plan requires routine review of locations of sterilization equipment, copiers, paint shops, and other indoor pollutant sources requiring air monitoring to ensure that healthy IAQ will be maintained. • Verify that the facility annually undertakes air testing and complies with regulatory limits for any substance listed in OSHA Table Z-1-Limits for Air Contaminants. • Annually evaluate the plan's success responding to IAQ incidents. Analyze and determine the root causes of IAQ incidents and compile documentation on the short term and long-term actions taken. <p>AND</p> <ul style="list-style-type: none"> • Maintain a minimum annual indoor air quality satisfaction rate of 80% reported by an annual survey of facility occupants, in accordance with ASHRAE 62.1-2007. In acute care settings, survey staff in both administrative and clinical settings; in residential health care occupancies, survey both residents and staff. 	<p>Modified from LEED EB 2008 IEQ c1.1: IAQ Best Management Practices: IAQ Management Program</p>

<p>FM 7.1-7.4 On-Site & Off-Site Renewable Energy</p>	<p>Encourage and recognize increasing levels of on-site and off-site renewable energy in order to reduce environmental and health burdens associated with fossil fuel energy use.</p>	<ul style="list-style-type: none"> • Fulfill some or all of the building's total energy use through the use of on-site or off-site renewable energy systems. • Projects shall compile proof of a contract to purchase RECs for a minimum of two years and shall also make a commitment to purchase RECs on an ongoing basis beyond that contract. • Only projects meeting an Energy Star® score of 75 or Energy Use Intensity (EUI) of 25% better than average in accordance with GGHC FM Credit 1: Optimize Energy Performance may pursue more than one point under the off-site renewable energy certificates compliance pathway. • Credit 7.1: 1% on-site or 25% off-site • Credit 7.2: 3% on-site or 50% off-site • Credit 7.3: 5% on-site or 75% off-site • Credit 7.4: 10% on-site or 100% off-site 	<p>Modified from LEED EB 2008 EA Credit 4: On-Site and Off-Site Renewable Energy</p>
<p>FM 8 Refrigerant Management</p>	<p>Reduce ozone depletion and support early compliance with the Montreal Protocol while minimizing direct contributions to global warming.</p>	<p>OPTION A</p> <ul style="list-style-type: none"> • Do not use refrigerants in base building HVAC&R systems. <p>OR</p> <p>OPTION B</p> <ul style="list-style-type: none"> • Select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. The base building HVAC&R equipment shall comply with the following formula, which sets a maximum threshold for the combined contributions to ozone depletion and global warming potential: $LCGWP + (LCODP \times 10^5) \leq 100$ <p><i>Note: Small HVAC&R units (defined as containing less than 0.5 lbs of refrigerant), and other equipment such as standard refrigerators, small water coolers, medical equipment, and any other cooling equipment that contains less than 0.5 lbs of refrigerant, are not considered part of the "base building" system and are not subject to the requirements of this credit.</i></p>	<p>Modified from LEED EB 2008 EA c5: Refrigerant Management</p>
<p>FM 9 Light Pollution Reduction</p>	<p>Minimize light trespass from the building and site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.</p>	<p>FOR INTERIOR LIGHTING</p> <ul style="list-style-type: none"> • The angle of maximum candela from each interior luminaire as located in the building shall intersect opaque building interior surfaces and not exit out through the windows. • In spaces with fenestration that do not function 24/7, all non-emergency interior lighting shall be automatically controlled to turn off during non-business hours. Provide up to 2-hour manual override capability for after hours use. <p>AND</p> <p>FOR EXTERIOR LIGHTING</p> <ul style="list-style-type: none"> • Zone and control lights so as to restrict full night lighting to the following areas: Emergency Department, a small employee parking area, a small visitor parking area, pedestrian walkways, and circulation routes. Reduce sight lighting by 50% in all other non-essential areas after 11pm. • Only light areas as required for safety and comfort. Do not exceed 80% of the lighting power densities for exterior areas and 50% for building facades and landscape features as defined in ASHRAE/IESNA Standard 90.1-2004, Exterior Lighting Section, without 	<p>Aligned with LEED HC SS c8: Light Pollution Reduction</p>

		<p>amendments.</p> <ul style="list-style-type: none"> • All projects shall be classified under one of the following zones, as defined in IESNA RP-33, and shall follow all of the requirements for that specific zone. <ul style="list-style-type: none"> • For Lighting Zones 2, 3, and 4 - For site boundaries that abut public right-of-way, light trespass requirements may be met relative to the curb line shared by the public right-of-way and the site instead of the site boundary. • For ALL Zones - Illuminance generated from a single luminaire placed at the intersection of a private vehicular driveway and public roadway accessing the site, is allowed to use the centerline of the public roadway as the site boundary for 2 times the driveway width. 	
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Chemical Management

Title	Intent	Credit Goals	Source
CM Prereq 1 Polychlorinated BiPhenyl (PCB) Removal and Asbestos-Containing Materials (ACM) Management	Reduce the potential exposure of building occupants to polychlorinated biphenyls and equivalents (PCBs), PCB combustion by-products, and asbestos-containing materials (ACM). Prevent associated harmful effects of these hazardous materials in new and existing buildings.	OPTION 1: New Construction (operational less than one year) <ul style="list-style-type: none"> • Verify that materials containing polychlorinated biphenyls and equivalents (PCB's), PCB combustion by-products and asbestos-containing materials (ACM) are not present in the building or on the site. OR OPTION 2: Existing Facilities (operational more than one year) <ul style="list-style-type: none"> • Develop and implement a program for the discovery, testing and mitigation of PCB-containing materials and ACM to ensure proper removal and appropriate disposal as the facility is upgraded and equipment is replaced. • Identify the applicable regulatory requirements for identification and proper disposal of PCBs and ACM. • Maintain a current survey of the facility to identify where PCBs and ACM may be remaining in the building and on the site. 	Modified from previous LEED-EB version
CM Prereq 2 Chemical Management Policy and Audit	Institute a comprehensive chemical management policy and audit process to establish a framework of policies and procedures to reduce and eliminate the use, emission and improper disposal of chemical hazards and toxic materials within the healthcare facility and to the surrounding community.	<ul style="list-style-type: none"> • Develop a comprehensive chemical management policy (per Joint Commission Environment of Care Standard 3.10.1). • Undertake an internal hazardous chemical/material audit (per Joint Commission Environment of Care Standard 3.10.2, Element of Performance 2: Hazardous Materials and Hazardous Waste Inventory) to determine use by each department, and properly characterize chemical/materials. • Develop and implement an occupational health strategy addressing potential occupational exposure issues and goals for improvement. 	New to GGHC
CM Prereq 3 Community Contaminant Reduction: Leaks & Spills	Mitigate leaks and spills and waterborne effluents to prevent releasing waterborne environmental, health and safety burdens to the site neighbors and surrounding community.	<ul style="list-style-type: none"> • Develop and implement a policy that complies with US EPA Spill Prevention Control Countermeasures Regulations (SPCC) containment and engineering controls and all applicable state and local administrative codes pertaining to storage tanks to manage above- and below-ground storage of fuels and chemicals in order to minimize risk from leakage and spills. • Develop and implement an emergency response plan to contain leaks and spills from above- and below-ground storage tanks in accordance with applicable state and local administrative codes pertaining to petroleum storage tanks. • Ensure that outdoor hazardous waste storage areas include secondary containment provisions, a locked enclosure, an emergency phone and proper labeling with the date and documentation of all chemicals stored onsite per the U.S. EPA Resource Conservation and Recovery Act (RCRA) or state or local regulations, whichever is most stringent. Assure that RCRA rules are followed for time limitations on hazardous waste storage areas. • Develop and implement a plan to prevent materials/substances from dumpsters, compactors and outdoor hazardous or medical waste storage areas from entering stormwater runoff, and inspect and monitor storm drains at least quarterly to ensure proper clearance. 	New to GGHC

<p>CM 1.1 Indoor Chemical Contaminant Reduction: Sanitary Sewer</p>	<p>Reduce and eliminate the use and improper disposal of chemical hazards and toxic materials within the health care facility to safeguard the health of building occupants.</p>	<ul style="list-style-type: none"> • Develop and implement a policy banning discharge of chemicals into the sanitary sewer without express permission and acknowledgment of the Hazardous Materials Officer or other staff member responsible for regulatory compliance. Report to local Publicly Owned Treatment Works (POTW) on all planned chemical releases to wastewater to ensure regulatory compliance. • Test wastewater discharge at minimum quarterly to ensure that nitrates, mercury and other heavy metals, cyanide and other toxic substances are not entering the sanitary sewer at concentrations greater than federal, state or locally regulated levels. Mercury shall be eliminated from wastewater down to 30 parts per trillion per EPA Method 1631E (40 CFR Part 136). Ensure that chemical and biological oxygen demand levels meet local publicly-owned treatment works (POTW) standards. • 	<p>New to GGHC</p>
<p>CM 1.2-1.4 Indoor Chemical Contaminant Reduction: Hand Hygiene Products, Sterilization & High Level Disinfection</p>	<p>Reduce and eliminate the use and improper disposal of chemical hazards and toxic materials within the health care facility to safeguard the health of building occupants.</p>	<p>CM Credit 1.2: Hand Hygiene</p> <ul style="list-style-type: none"> • In collaboration with the infection control committee, use the infection control risk analysis (ICRA) process to determine which areas of the facility may require the use of antimicrobial hand soaps. Avoid the use of hand soaps containing antimicrobials for any area not recommended by the ICRA process, as a mechanism to reduce the volume of antimicrobials entering the sanitary sewer and thus the environment. For hand soaps not containing antimicrobials, utilize selection criteria for hand soaps per GGHC ES Credit 1.3-1.5: Environmentally Preferable Cleaning: Sustainable Cleaning Products & Materials. • In addition to meeting environmental and efficacy criteria, ensure that hand hygiene products have a low irritancy potential, particularly when these products must be used multiple times per shift. To maximize acceptance of hand-hygiene products by health care providers, solicit input from these staff regarding the feel, fragrance, and skin tolerance of products under consideration. <p><i>Note: Alcohol-based hand sanitizers are excluded from this credit.</i></p> <p>CM Credit 1.3: Sterilization</p> <ul style="list-style-type: none"> • Replace the sterilant ethylene oxide (EtO) with safer alternatives for a minimum of 90% of equipment requiring sterilization. • Where EtO must be used due to incompatibility or regulatory recommendations, ensure that reprocessing units are enclosed under negative pressurization and utilize local exhaust ventilation in accordance with OSHA Standard 29 CFR 1910.1047 and NIOSH "Current Intelligence Bulletin-52: Ethylene Oxide Sterilizers in Healthcare Facilities (1997, October 22)" and the CDC/HICPAC Disinfection and Sterilization Guidelines, 2008. Monitor exposure to ensure that the Threshold Limit Value (TLV – 15 min STEL) to the American Conference of Government Industrial Hygienists (ACGIH) and the OSHA Permissible Exposure Limit (PEL) of 1 ppm for an 8 hour time weighted average with a 5 ppm excursion level is never exceeded. In addition, meet state permitting requirements for use of EtO sterilizer reprocessing units. <p>CM Credit 1.4: High Level Disinfection</p> <ul style="list-style-type: none"> • Replace the high level disinfectant (HDL) glutaraldehyde 	

		<p>with safer alternatives for a minimum of 90% of equipment requiring high level disinfection.</p> <ul style="list-style-type: none"> Where glutaraldehyde must be used due to incompatibility or regulatory recommendations: <ul style="list-style-type: none"> Ensure that enclosed reprocessing units limit the Threshold Limit Value (TLV – 15 min STEL) to the American Conference of Government Industrial Hygienists (ACGIH) threshold of 0.05 ppm or less, and use local exhaust ventilation (capture velocity of at least 100 feet per minute and at least 10 air exchanges per hour) per NIOSH's Glutaraldehyde: Occupational Hazards in Hospitals. Units must also operate in accordance with the CDC/HICPAC Disinfection and Sterilization Guidelines, 2008. Additionally, glutaraldehyde shall never be used or stored in a direct patient care area. Replace manual disinfection with automatic machine washers/disinfectors to minimize staff exposure to liquid disinfectants. 	
CM 1.5 Indoor Chemical Contaminant Reduction: Laboratories	Reduce and eliminate the use and improper disposal of chemical hazards and toxic materials within the health care facility to safeguard the health of building occupants.	<ul style="list-style-type: none"> Develop and implement a laboratory solvent reprocessing program for alcohols, xylene and formalin in the laboratory. Phase out use of mercury-containing fixatives, stains and laboratory equipment where safe and effective alternatives exist, as outlined in the Sustainable Hospital Project's "List of Mercury-free Alternatives in the Lab." Use automated laboratory equipment that maximizes sample throughput while minimizing sample size, reagent quantity, and waste streams. Utilize microscale chemistry to minimize use of lab chemicals and solvents where possible. Work with Environmental Health & Safety (EHS) personnel and wastewater authorities in developing an action plan. Use either local exhaust controls or other HVAC design element(s) that facilitate safe removal of chemical vapors, to minimize occupational exposure in laboratory per FM Credit 6: IAQ Management: Maintaining Indoor Air Quality. 	
CM 1.6 Indoor Chemical Contaminant Reduction: Radiology	Reduce and eliminate the use and improper disposal of chemical hazards and toxic materials within the health care facility to safeguard the health of building occupants.	<ul style="list-style-type: none"> Recycle silver and used lead aprons from Radiology. Ensure that fixer solution from x-ray technology (where not digital) is properly captured and disposed of. Do not dispose to sanitary sewer unless tested for heavy metal content. Use either local exhaust controls or other HVAC design element(s) that facilitates safe removal of chemical vapors, to minimize occupational exposure in radiology per FM Credit 6: IAQ Management: Maintaining Indoor Air Quality. 	
CM 2.1-2.2 Pharmaceutical Minimization, Management & Disposal	Safeguard human and ecological health through minimization and proper management and disposal of pharmaceuticals and associated wastes.	<p>CM Credit 2.1 (1 point)</p> <ul style="list-style-type: none"> Utilize a formulary review process to characterize hazardous pharmaceuticals. Based on the results of the formulary review, develop and implement a policy and program for the receipt, handling, storage, labeling, transport and end disposal of all pharmaceuticals, as well as staff education and training. <p>CM Credit 2.2 (1 point in addition to CM Credit 2.1)</p> <ul style="list-style-type: none"> Minimize the generation of waste pharmaceuticals. 	New to GGHC

		<ul style="list-style-type: none">• Institute best management practices for the handling and disposal of non-regulated pharmaceuticals that act as teratogens, mutagens, carcinogens, endocrine disruptors, reproductive and developmental toxicants or pose a threat to ecosystem health.• Utilize stock rotation strategies to rotate pharmaceuticals close to the expiration date back into high-use areas such as crash carts or the pharmacy as a means of pharmaceutical waste minimization.• Ensure all pharmaceutical samples are logged into the facility, and only allow those samples with an expiration of one year or longer.	
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Waste Management

Title	Intent	Credit Goals	Source
WM Prereq 1 Waste Management Plan	Institute a waste management plan to establish a framework of policies and procedures with a goal of zero waste.	<ul style="list-style-type: none"> • Develop and implement a Waste Management Plan in compliance with the Waste Management Sections of the Joint Commission Environment of Care Standard 3.10 coordinating the facility's various waste policies into a single framework. • The Waste Management Plan must include the following: <ul style="list-style-type: none"> • A tracking and reporting mechanism for waste and material weight or volume and associated cost information, as detailed in GGHC WM Prerequisite 2 Waste Generation Profile and Measurement. • Logistics for receiving, handling, returning, storing, spill response, and safe disposal of hazardous materials, recyclables and waste. • Set clear expectations for facility-wide responsibility regarding required participation in environmental programs that cross several department lines. • Provide departmental access to the plan and educate new and existing employees through annual staff education programs. • Establish and maintain a process for continuous review and updates of the plan on an annual basis with documentation in a committee structure, or equivalent decision-making body. 	Modified from LEED EB 2008 MR Prereq 2: Solid Waste Management Policy
WM Prereq 2 Waste Generation Profile & Measurement	Establish baseline generation rates of all waste categories to enhance environmental goal setting and performance tracking.	<ul style="list-style-type: none"> • Collect waste stream data and establish a tracking mechanism through invoice review and waste and recycling vendor reporting to establish a current baseline identifying the types and amounts of waste stream categories in weight or volume per month and cost per month for a minimum one year period. Characterize major waste streams including, at a minimum: regulated medical waste, solid waste, hazardous waste and recyclables. Calculate the percentage represented by each waste stream to help determine the focus of the waste reduction program. . • Annually set waste segregation and reduction goals in alignment with GGHC WM Credits 1-3. • Standardize vendors (where beneficial) and operations, and set up a data collection procedure, based on new data on materials and wastes. • Identify waste data baseline and convert to adjusted patient day. • At a minimum of quarterly, report waste profile to Joint Commission's Environment of Care (EOC) committee or equivalent decision-making body. 	Modified from LEED EB 2008 MR c6: Solid Waste Management: Waste Stream Audit
WM Prereq 3 Solid Waste Land Disposal	Prevent contamination of the land associated with improper disposal of toxic, hazardous, infectious or radiological substances.	<ul style="list-style-type: none"> • Verify that contractors selected for solid, medical or hazardous waste treatment are licensed and permitted by the state. Ensure contract language with waste contractors requires full compliance with applicable state disposal rules for applicable waste types. • Select contractors and technologies for medical, hazardous and mixed waste treatment that meet Maximum Achievable Control Technology (MACT) standards. • Ensure contract language with waste contractors requires verification that chemotherapeutic agents, regulated 	New to GGHC

		medical waste, pathological waste, sharps, hazardous materials and low level radioactive waste are properly transported..	
WM 1.1-1.3 Solid Waste & Material Management: Waste Prevention & Reduction	Reduce solid waste disposal in land, air and water through prevention, reuse, recycling, donation and composting.	<ul style="list-style-type: none"> • Measure, track and report annual reduction in total solid waste. <ul style="list-style-type: none"> • WM Credit 1.1: 15% waste diversion or 25 pounds per adjusted patient day • WM Credit 1.2: 35% waste diversion or 20 pounds per adjusted patient day • WM Credit 1.3: 50% waste diversion or 15 pounds per adjusted patient day • Conduct site inspections at minimum on contract renewal for all final waste treatment, storage and disposal facilities. • Avoid municipal waste incineration for all waste streams, except where required. 	Modified from LEED EB 2008 MR c7: Solid Waste Management: Ongoing Consumables & MR c8: Solid Waste Management: Durable Goods
WM 1.4 Solid Waste & Material Management: Recycling and Reuse of Facility Alterations & Additions	Reduce amount of waste associated with renovations and alterations through deconstruction, material reuse, donation and recycling.	<ul style="list-style-type: none"> • Develop and implement a process (both written and in practice) to conduct a walk-through of areas prior to renovation to identify wastes, materials, deconstruction opportunities, supplies and equipment for reuse, donation or proper cleanup and disposal in preparation for the renovation. Set up a system to coordinate responsible parties to reduce waste and conserve financial and natural resources prior to area demolition. • Include in the Waste Management Plan (as defined in GGHC WM Prerequisite 1) a waste diversion program covering materials for facility renovations, demolitions, refits and new construction additions. 	Modified from LEED EB 2008 MR c9: Solid Waste Management: Facility Alterations & Additions
WM 2 Regulated Medical Waste Reduction	Reduce disposal of regulated medical waste to landfills, incinerators and alternative treatment plants through improved segregation, change of work practices and use of emerging technology.	<p>WM Credit 2.1 (1 point)</p> <ul style="list-style-type: none"> • Develop a facility policy for regulated medical waste disposal in collaboration with infection control and environmental services that is based on and references the definition of regulated medical waste (RMW) established by Authorities Having Jurisdiction (AHJs). AHJs for RMW may include the U.S. Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard or state-level environmental agencies or departments of health. Defer to the most stringent standard having jurisdiction and comply with CDC/HICPAC's 2003 Guidelines for Environmental Infection Control.. Ensure that specific details covering products such as syringes, specimen bags, ampules, vials, trace chemotherapeutic waste, etc., are covered by the policy. • Provide RMW segregation training for all new and existing employees, at the departmental level and annually. Annually provide Department of Transportation training for all employees preparing RMW for removal. Annually provide written RMW education information in newsletters and brochures targeted to physicians and other clinical staff, including agency staff • Demonstrate that the regulated medical waste (RMW) stream (by weight or volume) is less than 10% of the total waste stream – calculated over a minimum 12 month period after establishing a baseline, as outlined in with GGHC WM Prerequisite 2. • For the first twelve months, report RMW generation rate and percentage of overall waste stream at least quarterly to 	New to GGHC

		<p>the Joint Commission's Environment of Care (EOC) committee or equivalent decision-making body.</p> <p>WM Credit 2.2 – (1 point in addition to WM Credit 2.1)</p> <ul style="list-style-type: none"> • Demonstrate that incineration is used only to dispose of the fraction of the regulated medical waste stream required by regulations to be incinerated. Segregate waste streams to ensure that no mercury or batteries are present in the portion of regulated medical waste stream bound for incineration or any other treatment technology. When considered non-infectious (or when feasible under regulations), avoid incineration of any halogenated compound, including PVC plastic and brominated flame retardants. • Incorporate steps into the facility's Waste Management Plan (as outlined in GGHC WM Prerequisite 1) to implement maximum achievable control technology (MACT) alternatives to incineration. 	
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Environmental Services

Title	Intent	Credit Goals	Source
<p>ES 1.1-1.2 Environmentally Preferable Cleaning: Policy Development</p>	<p>Develop and implement an operational policy to limit exposure of building occupants and environmental services personnel to potentially hazardous chemical, biological and particulate contaminants from cleaning products and procedures, while ensuring effective infection control processes.</p>	<p>Develop and maintain an environmentally preferable cleaning policy for the facility that addresses all surfaces.</p> <p>ES Credit 1.1 (1 point)</p> <ul style="list-style-type: none"> • Establish standard operating procedures (SOPs) addressing how an effective cleaning and hard floor and carpet maintenance system will be consistently utilized, managed, audited and effectively staffed. • Outline strategies for promoting and improving hand hygiene, emphasizing hand washing in accordance with the CDC "Hand Hygiene Guidelines." • Establish guidelines for safe handling and storage of cleaning chemicals used in the facility, including a plan for managing hazardous spills or mishandling incidents in accordance with Joint Commission EC3.10.3, OSHA Hazard Communication, OSHA permissible exposure limits (PEL), NIOSH recommended exposure limits (REL) and/or EPA RCRA standards. • Upon hire and annually, provide site-specific training for environmental services personnel. <p>ES Credit 1.2 (1 point in addition to ES Credit 1.1)</p> <p>In addition to GGHC ES Credit 1.1, include the following criteria in the facility's environmentally preferable cleaning policy:</p> <ul style="list-style-type: none"> • A commitment to phase in ES Credit 1.3-1.5: Environmentally Preferable Cleaning: Sustainable Cleaning Products & Materials, and ES Credit 1.6: Environmentally Preferable Cleaning: Environmentally Preferable Cleaning Equipment, granting preference to products that contain no added fragrance. • A commitment to purchase cleaning products that are fragrance-free and avoid the use of fragrance-emitting devices, air fresheners, fragrance or deodorizer sprays or urinal blocks. • A commitment to phase in the purchase or contracting out of sustainable floor care systems that employ "metal free" floor finish, thereby extending the period between stripping and recoating to at least twelve months. Floor care systems shall meet either Green Seal GS-40 for Industrial and Institutional Floor-Care Products OR phthalate-free products meeting Environmental Choice CCD-147 for Hard Floor Care. • A commitment to collaborate with the purchasing department (or applicable staff) to phase in the installation of environmentally-preferable flooring systems that require least toxic floor care systems through the substitution of least toxic chemical care systems for current flooring systems, and consideration of replacement flooring systems that can be effectively maintained with least toxic products. • Annually evaluate new technologies, procedures and processes to ensure continuous improvement. Provide a mechanism for collecting occupant feedback (both patients and staff) on odors or concerns about cleaning products or practices. 	<p>Modified from LEED EB 2008 IEQ c3.1: Green Cleaning: High Performance Cleaning Program</p>

<p>ES 1.3-1.5 Environmentally Preferable Cleaning: Products & Materials</p>	<p>Minimize exposure of building occupants and cleaning personnel to potentially hazardous chemical, biological and particulate contaminants, and reduce use of virgin paper resources in janitorial paper and other disposable product applications through purchase and proper implementation of environmentally preferable cleaning products and materials.</p>	<p>Achieve GGHC ES Credits 1.1 & 1.2.</p> <p>AND</p> <ul style="list-style-type: none"> Implement an environmentally preferable purchasing program for cleaning products and materials, disposable paper products and trash bags. Cleaning product and material purchases include both products for use by in-house staff and products used by outsourced service providers. Perform an annual assessment in collaboration with the Infection Control Committee and Environmental Services of all cleaning chemicals used within the facility Annually document any enhancements necessary to continue cleaning with environmentally preferred cleaners, and identify purchasing parameters for selection. <p>AND</p> <p>Credit 1.3-1.4 (2 points)</p> <ul style="list-style-type: none"> One point (up to 2 total) will be awarded for the purchase and implementation of every five categories of environmentally preferable cleaning products listed below where 100% of procurement meets one or more of the referenced standards for the category. Ensure that all procurement (e.g., General Purpose Cleaners, Carpet & Upholstery Cleaners, etc.) aligns with the infection control risk assessment and environmentally preferable cleaning policy outlined in GGHC ES Credit 1.1 <p><i>Note: Hand hygiene is excluded from this credit. See GGHC CM Credit 1.2 for guidance on hand hygiene processes and products.</i></p> <p>AND/OR</p> <p>Credit 1.5 (1 point)</p> <ul style="list-style-type: none"> One point will be awarded for the purchase and implementation of minimum five of the categories of disposable products listed in the credit where 100% of procurement meets the referenced standard. In addition, all disposable products shall be certified Processed Chlorine-Free® (PCF), if applicable. Ensure that all procurement aligns with the infection control risk assessment and environmentally preferable cleaning policy outlined in GGHC ES Credit 1.1. 	<p>Modified from LEED EB 2008 IEQ c3.4-3.6: Green Cleaning: Purchase of Sustainable Cleaning Products and Materials</p>
<p>ES 1.6 Environmentally Preferable Cleaning: Equipment</p>	<p>Develop and implement an operational program to limit exposure of building occupants and environmental services personnel to potentially hazardous chemical, biological and particulate contaminants from cleaning equipment and procedures, while ensuring effective infection control processes.</p>	<p>Achieve both GGHC ES Credit 1.1 & 1.2.</p> <p>AND</p> <ul style="list-style-type: none"> Develop, implement and maintain a program for the use of cleaning equipment that maximizes effective reduction of building contaminants, while meeting infection control committee recommendations and minimizing environmental and health burdens. Ensure that all procurement and cleaning practices align with the infection control risk assessment and environmentally preferable cleaning policy outlined in GGHC ES Credit 1.1. Where outsourced contracts are utilized, Credit Goals must be met by contractor's equipment and practices. Conduct a reassessment of the use of chemical disinfectants and sterilants in the facility based on an infection control risk assessment (ICRA) and available evidence-based resources with target to optimize disinfectant use for high touch areas as defined by the infection control committee. Utilize alternatives such as detergent and microfiber mop heads for surfaces that carry little risk of cross transmission, such as corridors. 	<p>Modified from LEED EB 2008 IEQ c3.7: Green Cleaning: Sustainable Cleaning Equipment</p>

		<ul style="list-style-type: none"> The cleaning equipment program shall cover the following equipment: vacuum cleaners, carpet extraction equipment, powered maintenance equipment, automated scrubbing machines, battery-powered equipment, microfiber mop technology, ergonomically designed equipment, equipment safeguards, an equipment logbook, staff training requirements. 	
ES 2 Entryway Systems	Reduce exposure of building occupants and maintenance personnel to potentially hazardous chemical, biological and particle contaminants, which adversely impact air quality, health, building finishes, building systems and the environment.	<ul style="list-style-type: none"> Utilize entryway systems (grills, grates, mats, etc.) to reduce the amount of dirt, dust, pollen and other particles entering the building at all qualifying entryways, and develop and implement the associated cleaning strategies to maintain those entryway systems. Buildings must demonstrate that at least 10 feet in length of mats are in place at all qualifying entryways unless otherwise prevented by facility layout (in which case utilize matting as close to 10 feet in length as feasible). Ensure matting is designed for interior or exterior use, as appropriate, with relevant safety features for entryway use and is certified as slip resistant by the National Floor Safety Institute. 	Modified from LEED EB 2008 IEQ c3.8: Green Cleaning: Entryway Systems
ES 3 Indoor Integrated Pest Management	Eliminate human exposure to physical and chemical hazards associated with pest management products and practices by employing environmental services operations that focus on pest prevention emphasizing non-chemical strategies that protect people from unnecessary exposure to pests and pesticides.	<ul style="list-style-type: none"> Develop an Integrated Pest Management (IPM) Program for managing pest control in the building interior that prioritizes safer alternatives to chemical pesticides while preventing economic and health damage caused by pests. Phase in implementation of the IPM program within one year. Facilities bound by current contracts that do not allow for the implementation of the IPM policy shall phase in policy implementation in accordance with contract renewal timelines. Write the IPM Program into all pest control bid specifications, including the option to review any pesticide formulation and active ingredients prior to application. The program shall eliminate the use of pesticides in the listed categories except in case of immediate endangerment to health as a result of a pest situation. Use of any pesticide in the following categories must first be reviewed by infection control and safety: The plan shall include a communication strategy to provide notification of the IPM system. The notification shall be provided directly to all building occupants. Ensure that clinical staff is notified. The program shall incorporate "Universal Notification," which requires advance notice not less than 72 hours under normal conditions and 24 hours in emergencies before a pesticide, other than a least toxic, non-volatile pesticide is applied in a building or on surrounding grounds that the building maintains. The notice shall include: Pesticide Applications <ul style="list-style-type: none"> Ensure that any pesticide applicator on the hospital campus is licensed by the state, certified to handle the pest control products being used and utilizes appropriate personal protective equipment. Ensure that all pesticide products to be used in the building are reviewed by Infection Control and Safety before use. The IPM plan shall address under what circumstances an emergency application of 	Modified from LEED EB 2008 IEQ c3.9: Green Cleaning: Indoor Integrated Pest Management

		<p>pesticides in a building or on surrounding grounds being maintained by the building can be conducted without complying with the above provisions. Universal Notification strategies for pesticide application still apply under emergency applications. In addition, ensure that occupants and janitorial workers are notified within 24 hours of the pesticide application.</p>	
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Food Service

Title	Intent	Credit Goals	Source
FS 1.1 Sustainable Food Policy & Plan	Create, promote and implement sustainable food purchasing policies and plans that support human and ecological health.	<ul style="list-style-type: none"> Develop a Sustainable Food Policy with strategies for execution aligned with Food Service Credits 2-7; goals indicating what metrics will be tracked and how success will be defined; an action plan; and, an evaluation plan. <p>AND</p> <ul style="list-style-type: none"> Develop and implement a Sustainable Food Plan according to one of the following options: <ul style="list-style-type: none"> OPTION 1: Identify support from key stakeholders and adopt and implement a food policy vision statement that links desired outcomes and values of the program to the institution's broader mission OPTION 2: Adopt and implement Health Care Without Harm's Healthy Food in Health Care Pledge 	New to GGHC
FS 1.2 Food Nutrition	Create, promote and implement sustainable food purchasing policies and plans that support human and ecological health.	<ul style="list-style-type: none"> Achieve FS Credit 1.1: Sustainable Food Policy and Plan <p>AND</p> <ul style="list-style-type: none"> Except for restricted diets, include a minimum of one fresh fruit option at each patient meal. At lunch and dinner, provide a fresh green salad and a minimum of one non-starch fresh vegetable option. For patient and cafeteria food service, offer whole grain options for minimum 50% of grains and breads (e.g., whole-wheat bread, whole-grain rolls, brown rice). For patient and cafeteria food service, provide a minimum of one protein-balanced vegetarian menu option during each meal. <p>AND</p> <ul style="list-style-type: none"> Implement a minimum of four of the seven practices outlined in the credit. 	New to GGHC
FS 2 Sustainable Food Education & Promotion	Create awareness about sustainable hospital food service initiatives among staff, patients, visitors, service providers, vendors and the community of hospital food service initiatives and the associated human health benefits.	<p>Education</p> <ul style="list-style-type: none"> Upon hire and annually, hold a minimum of 1 educational event targeted to the food service department focused on the facility's sustainability initiatives and pursuit of relevant Credit Goals in the Food Service section of the <i>Green Guide</i> and explicitly explaining the link between human health and food production. Hold a minimum of 1 educational event annually targeted to hospital employees outside of the food service department. <p>AND</p> <p>Healthy Sustainable Food Promotion</p> <ul style="list-style-type: none"> Annually implement a minimum of 3 of the listed initiatives aimed at educating hospital staff, patients, and the community about food service sustainability commitments and activities. 	New to GGHC
FS 3.1-3.3 Local, Sustainably Produced Food Purchasing	Improve human and ecological health through purchase of local and sustainably produced food products.	<p>Achieve a minimum percentage of annual combined food and beverage purchases (both in-house and contracted food service) from any combination of the following sources:</p> <ul style="list-style-type: none"> Approved to carry one or more of the listed independent third party certified ecolabels. <p>AND/OR</p> <ul style="list-style-type: none"> Carry one of the listed label claims allowed by USDA or 	Modified from LEED EB 2008 MR c5: Sustainable Purchasing: Food

		<p>FDA.</p> <p>AND/OR</p> <ul style="list-style-type: none"> • Farms, ranches, <u>and</u> production/processing facilities located within a 200-mile radius of the facility. • FS Credit 3.1: 15% • FS Credit 3.2: 25% • FS Credit 3.3: 50% 	
<p>FS 4.1-4.2 Reusable & Non-Reusable Products: Food Service Ware</p>	<p>Support environmental stewardship of virgin resources by purchasing reusable and non-reusable products.</p>	<p>FS Credit 4.1 Reusable Food Service Ware (1 point):</p> <ul style="list-style-type: none"> • Develop and implement a program whereby all food service ware for either cafeterias or patient meals is reusable. Demonstrate that the program has been in place for a minimum one-year period. <p>FS Credit 4.2 Non-Reusable Food Service Ware and Take Out Containers (1 point in addition to FS Credit 4.1):</p> <ul style="list-style-type: none"> • Develop and implement a program whereby 50% of single-use, non-reusable food service ware and take out containers purchased meet the "Preferred" criteria for biobased food service ware outlined in the Health Care Without Harm fact sheet "Choosing Environmentally Preferable Food Service Ware". Demonstrate that the program has been in place for a minimum one-year period. 	<p>New to GGHC</p>
<p>FS 4.3 Reusable & Non-Reusable Products: Non-Food Service Ware Items</p>	<p>Support environmental stewardship of virgin resources by purchasing reusable and non-reusable products.</p>	<ul style="list-style-type: none"> • Develop and implement a purchasing program for non food service ware items including, at a minimum: <ul style="list-style-type: none"> • All plastic bags shall be Certified Compostable as outlined in the Health Care Without Harm fact sheet "Choosing Environmentally Preferable Food Service Ware" OR made from a minimum of 10% post consumer material. • All paper-based non food service ware items (e.g., napkins, paper towels, general purpose industrial wipes, tray liners and patient menus) purchased for cafeteria and patient food service meet the reference standards listed and are certified Processed Chlorine-Free®, if applicable. Demonstrate that the program has been in place for a minimum one-year period. 	<p>New to GGHC</p>
<p>FS 4.4 Reusable & Non-Reusable Products: Bottled Water Elimination & Public Drinking Water Access</p>	<p>Support environmental stewardship of virgin resources by purchasing reusable and non-reusable products.</p>	<ul style="list-style-type: none"> • Eliminate single-use bottled water sales throughout the facility including vending/meetings and conferences. • In cafeteria provide easy access to water derived from local public water supply and through signage clearly indicate its availability. • In cafeteria provide reusable water containers (for purchase or free) and through signage or shelf space clearly indicate their availability. • In vending areas and break rooms provide clear signage indicating nearest local publicly accessible water fountain. 	<p>New to GGHC</p>
<p>FS 5 Hospital Supported Agriculture: Food & Farm Linkages</p>	<p>Support local and regional food production by increasing its visibility in the community and strengthening local agriculture infrastructure.</p>	<p>Develop and implement a program or programs incorporating at minimum three (3) of the listed strategies: Processing and Season Extension, Food Service Procurement, Farmers Markets, Food Box, Hospital Garden or Hospital Farm, Urban Garden Program, and/or Conference and Meeting Food Policy.</p>	<p>New to GGHC</p>

<p>FS 6.1 Food Waste Reduction, Donation & Composting</p>	<p>Support food security programs, soil restoration, and waste reduction through food waste reduction, donation and composting programs.</p>	<ul style="list-style-type: none"> • Develop and implement a food waste reduction and donation program for usable food, as deemed by state health code and other regional regulators. • Develop and implement a food waste composting program consistent with Department of Health and solid waste regulations, for collection from all food use areas including but not limited to: catering, patient rooms (where possible by regional regulation), cafeteria and food preparation areas. • Develop and implement food waste reduction, donation and food waste composting written management plans and include in the overall Waste Management Plan outlined in GGHC WM Prerequisite 1. • Estimate and track pounds of composted and donated food and include under the recycling section of the Waste Management Waste Profile outlined in GGHC WM Prerequisite 2. • Provide controlled areas to facilitate removal of food waste, consistent with an Integrated Pest Management (IPM) plan as outlined in GGHC ES Credit 3: Integrated Pest Management. 	<p>New to GGHC</p>
<p>FS 6.2 Food Services Recycling</p>	<p>Increase recycling of food services generated wastes to reduce solid waste disposal in landfills and incinerators.</p>	<p>Implement recycling for all of the following Food Service materials:</p> <ul style="list-style-type: none"> • Glass, metal and plastic • Corrugated boxes, boxboard and paper • Shrink wrap (bagged or baled) • Return pallets to vendors for reuse. 	<p>New to GGHC</p>
<p>FS 7.1-7.2 Food Vendors</p>	<p>Establish facility-wide implementation of healthy, sustainably produced food service programs by establishing parallel policies and programs with contracted food service vendors.</p>	<p>In addition to complying with the relevant GGHC Food Service credits through the Food Service department, establish and maintain facility-wide implementation of Food Service credits through contracts with food vendors. Calculate based on total facility food service budget including contracted food vendors unless listed otherwise. Up to two points total available. An additional innovation point available for facilities that achieve more than two of the categories listed.</p>	<p>New to GGHC</p>
<p>FS 8.1-8.2 Chemical Management for Food Services</p>	<p>Minimize toxic chemical use in food services preparation and service areas, including cleaning chemicals and pest management.</p>	<p>FS Credit 8.1: Cleaning Products</p> <ul style="list-style-type: none"> • Utilize environmentally preferable cleaning products to clean food preparation and food service areas (cafeterias), kitchen equipment, surfaces and dishware. These products may include floor cleaners, drain cleaners, oven cleaners, dish detergent, glass and surface cleaners, and multipurpose cleaners. Utilize cleaning products certified under the listed specifications in GGHC ES Credits 1.3-1.4 for available product categories. • Avoid phenolics in Food Service applications. • Where use of a sanitizer is recommended for previously cleaned food contact surfaces, sanitizer must meet U.S. EPA Efficacy Data Requirements for Sanitizing Rinses, and be in accordance with the U.S. Food and Drug Administration Hazard Analysis and Critical Control Point (HACCP) standard. All sanitizers for food contact surfaces must meet the current U.S. Food and Drug Administration Food Code (2005). • If using chlorinated sanitizers, ensure concentrations of available chlorine are no greater than 200ppm for previously cleaned food-contact surfaces in food service areas (per US EPA Efficacy Data Requirements for Sanitizing Rinses), unless required by authorities having jurisdiction (AHJ). AHJs may include state and local 	<p>New to GGHC</p>

		<p>health departments and/or the U.S. Food and Drug Administration.</p> <ul style="list-style-type: none"> • Use of disinfectants for hard surfaces (not food contact surfaces) in Food Services areas shall only occur as the result of explicit evaluation and recommendation by the Infection Control committee using the Infection Control Risk Assessment (ICRA) process. Ensure that the selection of any disinfectant for use on hard surfaces is an EPA-registered hospital-use disinfectant under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requirements. • Utilize only integrated pest management (IPM) techniques for pest management in the food services area per GGHC ES Credit 3: Integrated Pest Management. <p>FS Credit 8.2: Cutlery and Food Preparation Equipment</p> <ul style="list-style-type: none"> • Develop and implement a policy/program in consultation with the facility's Infection Control Committee and in accordance with the facility's Infection Control Risk Assessment and Audit that prohibits the purchase and use of cutlery and food preparation equipment impregnated with antimicrobials. 	
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Environmentally Preferable Purchasing

Title	Intent	Credit Goals	Source
<p>EP Prereq 1 Mercury Reduction</p>	<p>Protect the health of patients, staff and visitors, and reduce disposal costs and liability, by avoiding purchase of mercury-containing equipment and devices and phasing out existing mercury sources.</p>	<p>Equipment and Devices</p> <ul style="list-style-type: none"> • Develop a mercury reduction purchasing policy that prohibits purchase of mercury-containing equipment without prior specific approval from the Hazardous Materials Committee (or equivalent). • Create an inventory identifying all mercury-containing devices and equipment. • <i>Note: Mercury-containing equipment and devices may include, but are not limited to, the following: MRI equipment, wheel chairs, automated beds, cantor tubes, bed warmers, bougies and thermometers and other medical and laboratory equipment.</i> • Label any mercury-containing equipment or devices as “contains mercury.” • <i>Note: Fluorescent lamps are exempt from this labeling and inventory requirement; however, note purchasing criteria for lamps listed below.</i> • Identify alternatives to mercury-containing clinical devices and other stand-alone medical and/or facilities equipment (excluding fluorescent lamps) and pilot through supply chain or purchasing, in accordance with the protocol for any new purchase. Develop a plan to transition to mercury-free devices with 100% completion in five years (average 20% per year.) • For dental equipment, install or confirm existence of amalgam separators that capture a minimum 98% of mercury. Ensure Proper disposal of the captured mercury in accordance with GGHC WM Prerequisite 1: Waste Management Plan. <p>Lamps</p> <p>Develop and implement a lamp purchasing policy covering the following topics:</p> <ul style="list-style-type: none"> • Purchase only illuminated exit signs certified by Energy Star®. • At the end of their useful life, replace standard (e.g. non-pulse start) metal halide lamp assemblies in interior spaces and mercury vapor High Intensity Discharge (HID) lamp assemblies with other, lower mercury lamp types. • At the end of their useful life, replace current facility lamps with low mercury fluorescent and high pressure sodium lamp assemblies as listed in the credit. • Implement a lamp-recycling program that meets or exceeds the Universal Waste regulations of the respective state. <p>Training</p> <ul style="list-style-type: none"> • Educate and annually update purchasing and department heads on the facility’s mercury reduction policy, the process for purchasing mercury-free equipment and devices, and progress with the mercury phase-out plan. 	<p>Modified from LEED EB 2008 MR c4: Sustainable Purchasing: Reduced Mercury in Lamps</p>

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<p>EP Prereq 2 Electronic Assets Environmental Management Plan</p>	<p>Reduce the environmental and health burdens associated with the manufacture, use and disposal of electronic products.</p>	<ul style="list-style-type: none"> • Develop an Electronic Assets Management Plan that includes a total cost of ownership approach with strategies around Procurement, Reduction, Use-Phase Management, Responsible Reuse, and Responsible Recycling. • At the point of purchase for equipment, require manufacturers' or vendors' written commitments to equipment end-of-life management through to final disposition, including take-back, refurbishment, resale, responsible donation or recycling, and provision of asset tracking by serial number. Establish a process for tracking responsible end-of-life management for existing or inherited equipment. • Establish and maintain a HIPAA (Health Insurance Portability and Accountability Act) compliance plan for all electronic products to safeguard the privacy of personal information. 	<p>New to GGHC</p>
<p>EP Credit 1 Solid Waste Reduction in Purchasing</p>	<p>Reduce generation of municipal solid waste through waste prevention at the point of purchase.</p>	<ul style="list-style-type: none"> • Develop and implement a process and establish policy language for investigating waste prevention opportunities in the supply chain purchasing process for products and services. • Phase in waste reduction criteria into contracts and specifications for products and services at the point of development and renegotiation. Waste reduction criteria extend the life of a product through maintenance, reduced packaging, take back programs, leasing, switching from disposable to reusable or a change in process or preference to products for which markets exist and are readily recyclable or able to be reprocessed. • Annually educate department heads, purchasing personnel and their group purchasing organization (where appropriate) on the value of and opportunities for waste reduction. • Establish and maintain an EPP subcommittee (or equivalent decision-making body) reporting directly to the facility wide environmental stewardship committee focused on reducing waste in the supply chain. Integrate the subcommittee's work into the Integrated Operations & Maintenance Process outlined in GGHC IO Prerequisite 1: Integrated Operations & Maintenance Process. 	<p>New to GGHC</p>
<p>EP Credit 2 Toxic Chemical Reduction in Purchasing</p>	<p>Promote the health of building occupants, reduce disposal costs and liability, and improve health for employees through purchasing least toxic products.</p>	<p>EP Credit 2.1 (1 Point) – Policy/Structure Development Develop, implement and annually evaluate a comprehensive chemicals purchasing policy as part of an environmentally preferable purchasing (EPP) program for all major purchasing decisions that sets goals for the elimination of target chemicals in products and that seeks disclosure on the extent of testing of chemical ingredients in products. At a minimum, the chemicals policy shall require:</p> <ul style="list-style-type: none"> • The development of a position and a plan of action to address classes of chemicals of concern. • Target a list of classes of chemicals for elimination from products purchased by the facility including, at a minimum the following: Phthalates (specifically those listed under California Proposition 65 (Prop 65) plus Di-isononyl phthalate (DINP)), Polyvinyl chloride, Persistent bioaccumulative toxic chemicals, Bisphenol-A, Carcinogens, mutagens and reproductive toxicants, Halogenated flame retardants. • Annually review policy, progress and goal setting with the facility's group purchasing organization (GPO), purchasing department and other relevant staffers. Identify opportunities for the GPO to participate in market shifting and advocacy on behalf of membership 	<p>New to GGHC</p>

Environmentally Preferable Purchasing

		<p>organizations.</p> <p>EP Credit 2.2 (1 point in addition to EP Credit 2.1) – Implementation</p> <ul style="list-style-type: none"> Demonstrate active change in at least three of the six categories listed above, resulting in a transition to environmentally preferred products as a result of the chemical purchasing policy, including documentation in supply chain, purchasing and/or other committee. For example: An annual report could state, for example: “transitioned to DEHP- and PVC-free IV products, purchased halogenated flame retardant-free TV’s, purchased only RoHS-compliant electronic equipment, and eliminated persistent bioaccumulative and toxic chemicals from cleaning products.” 	
<p>EP Credit 3.1-3.5 Toxic Chemical Reduction: Facility Maintenance Alterations & Additions</p>	<p>Promote the health of building occupants, reduce disposal costs and liability, and improve health for employees through purchasing least toxic products.</p>	<ul style="list-style-type: none"> Establish environmentally-preferable specification and purchasing policies for building materials and products used for building maintenance, fit-outs, renovations and additions, as described in the 10 product groups below. One point (up to 5 total) will be awarded for each 10% of the total value of all applicable building materials and products based on project cost, used in maintenance, fit out, addition and renovation projects during the previous year that meet one of the 10 product criteria listed in the credit. 	<p>Modified from LEED HC MR Credit 4: PBT Source Reduction and EQ Credit 4: Low-Emitting Materials</p>
<p>EP Credit 3.6 Toxic Chemical Reduction: Furniture & Medical Furnishings</p>	<p>Promote the health of building occupants, reduce disposal costs and liability, and improve health for employees through purchasing least toxic products.</p>	<p>Ensure that 40% of the annual volume of all freestanding furniture and medical furnishings purchases based on cost meet the following criteria in Options 1, or 2 or 3 below.</p> <p>The dollar value of any individual product may be added towards the 40% total value if the product meets one of the following chemicals of concern criteria:</p> <p>Option 1</p> <ul style="list-style-type: none"> Furniture components, textiles, finishes or dyes: product does not contain more than one of the following chemicals or materials: <ul style="list-style-type: none"> Added urea formaldehyde Heavy metals: lead, mercury, cadmium, and antimony, except as allowed under the EU RoHS (Restriction of the Use of Certain Hazardous Substances of the European Union) Directive, Hexavalent chromium in plated finishes, except as allowed under the EU RoHS (Restriction of the Use of Certain Hazardous Substances of the European Union) Directive, Stain and non-stick treatments utilizing perfluorinated compounds (PFCs), including PFOA, All other added halogenated compounds (chlorinated and fluorinated plastics and halogenated flame retardants as listed in EPP Credit 3), except PFCs. Stain and non stick treatments utilizing perfluorinated compounds (PFCs), including PFOA. Added antimicrobial treatments containing halogenated compounds and/or silver nanoparticles. <p>OR</p> <p>Option 2</p> <ul style="list-style-type: none"> The product contains no more than two of the six above-listed categories of materials AND meets or exceeds the indoor air quality requirements of California’s Special Environmental Requirements, Specifications Section 01350, updated with California DHS Standard Practice CA/DHS/EHLB/R-174 as determined by independent 	<p>New to GGHC</p>

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		<p>laboratory testing and using the standard office building protocol parameters.</p> <p>OR</p> <p>Option 3</p> <ul style="list-style-type: none"> Sustainably Sourced Materials criteria (GGHC EP Credit 4.1-4.5) (salvaged, recycled, rapidly renewable, FSC certified wood, local manufacture) 	
<p>EP Credit 4.1-4.5 Sustainably Sourced Materials and Products: Facility Alterations & Additions</p>	<p>Reduce the environmental and health burdens of materials and products acquired for building maintenance, fit-outs, additions and renovations.</p>	<ul style="list-style-type: none"> One point (up to 5 total) will be awarded for each 10% of the total value of all building materials and products (based on cost) used in maintenance, fit out, addition and renovation projects during the previous year that meet the following criteria: salvaged, reused, or recycled; regionally sourced/manufactured; rapidly renewable; certified wood. If the facility undergoes outside contracted projects, the calculation shall either include all of these projects or exclude them all. If concrete or steel structural elements are applied toward this credit, the project must include at least two other materials or products from CSI MasterFormat divisions other than 03 and 05 to attain the first point. 	<p>Modified from LEED EB 2008 MR c3: Sustainable Purchasing: Facility Alterations & Additions</p>
<p>EP Credit 5.1-5.3 Electronics Purchasing & End of Life Management</p>	<p>Reduce the environmental and health burdens associated with manufacture, use and disposal of electronic products. Require take back and management services for end-of-life electronic products to safely manage hazardous compounds.</p>	<p>EP Credit 5.1 (1 Point) – End of Life Management</p> <ul style="list-style-type: none"> Require manufacturers’ or vendor’s written commitments of equipment end of life management, either through take-back or recycling, in all electronics purchasing contracts. For all electronic equipment: Contract only with recyclers that have signed the Electronic Recycler’s pledge of True Stewardship (E-Stewards), or that otherwise provide adequate documentation proving they recycle all useable materials and do not export hazardous waste, use prison labor or use incineration (including waste to energy). If using manufacturer or vendor take back programs, verify that they follow the same guidelines in their subcontracting of recyclers. Provide annual training to relevant staff. <p>EP Credit 5.2 (1 point in addition to EP Credit 5.1) – Office and Commercial Electronic Equipment Purchasing</p> <ul style="list-style-type: none"> Achieve EP Credit 5.1 <p>AND</p> <ul style="list-style-type: none"> Develop and implement purchasing standards requiring a minimum of 90% Energy Star labeled equipment for all Energy Star qualified office and commercial equipment. When Energy Star standards do not exist for a given product category, purchase energy-efficient products that are among the 25th percentile of lowest energy consumers for that class of equipment as designated by the Federal Energy Management Program. For computers: Develop and implement purchasing standards requiring that a minimum of 95% of electronic hardware meets or exceeds Silver level EPEAT-registration in all relevant product categories. Include the criteria for the Health Care Without Harm/Hospitals for a Healthy Environment (H2E) Computer Takeback Campaign Purchase Guidelines for Environmentally Preferable Computers (Beyond EPEAT) and the Suggested Environmental Preference and Disclosures for General (Non-computer) electronic devices in all RFPs for computers and monitors. Give preference to companies that meet the highest percentage of criteria. 	<p>Modified from LEED EB 2008 MR c2.1-2.2: Sustainable Purchasing - Durable Goods</p>

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		<p>EP Credit 5.3 (1 point in addition to EP c5.1) – Medical Equipment Purchasing</p> <ul style="list-style-type: none"> • Achieve EP Credit 5.1 • AND • Develop and implement purchasing standards requiring a minimum of 50% of all diagnostic imaging equipment (x-rays, MRIs, etc), sterilization, and physiological monitoring equipment (but excluding other types of medical equipment) to be among the 25th percentile of lowest energy consumers for that class of equipment. Equipment shall be compared based on their continuous (or “standby”) mode electrical energy consumption. 	
<p>EP Credit 6.1-6.2 Office Supplies</p>	<p>Conserve natural resources and promote ecosystem health through purchase of environmentally preferable office supplies.</p>	<p>Credit 6.1 (1 point) Develop and implement an environmentally preferable office supply product purchasing policy (including in-house purchases and contracts with office supply contractors), such that 50% of all office products meet the following criteria:</p> <ul style="list-style-type: none"> • Office paper products: Most current U.S. EPA Comprehensive Purchasing Guidelines AND meet either FSC Certified Paper requirements, Green Seal GS-07 for Printing and Writing Paper, or Green Seal GS-10 for Coated Printing Paper requirements. • Office non-paper products: Most current EPA Comprehensive Purchasing Guidelines for Office Non-Paper Products, excluding office furniture. • Educate employees on the environmentally preferable office products purchasing initiative upon hire and annually. <p>Credit 6.1 (1 point in addition to Credit 6.1)</p> <ul style="list-style-type: none"> • Achieve EP Credit 6.1 <p>AND</p> <ul style="list-style-type: none"> • Develop and implement an environmentally preferable office supply product purchasing policy (including in-house purchases and contracts with office supply contractors), such that 50% of all office paper products meet the following criteria: <ul style="list-style-type: none"> • 100% post-consumer recycled content. • Certified Processed Chlorine Free®. 	<p>Modified from LEED EB 2008 MR c1: Sustainable Purchasing - Ongoing Consumables</p>
<p>EP Credit 7 Low Emitting & Fuel Efficient Fleet Vehicles</p>	<p>Protect human health and improve air quality by reducing emissions from fleet vehicles.</p>	<ul style="list-style-type: none"> • Evaluate the type, size and number of fleet vehicles required to meet the needs of facility occupants, including programs such as van service for patients with ambulatory impediments and programs aimed at reducing single-person automobile use (as outlined in GGHC TO Credit 1.1). • Own, lease, or contract with a service that supplies a low-emitting and fuel-efficient or alternative fuel (e.g., biodiesel, compressed natural gas or liquid propane) vehicle fleet, defined as vehicles that are either classified as Zero Emission Vehicles (ZEV) by the California Air Resources Board, having achieved a minimum green score of 40 on the American Council for an Energy Efficient Economy (ACEEE) annual vehicle rating guide, or utilizing ultra-low sulfur diesel fuel and equipped with EPA or California Air Resources Board verified emissions control technology. • Low-emitting and fuel-efficient or alternative fuel vehicles shall comprise minimum 50% of total fleet mileage driven annually. • Provide alternative fuel stations, either onsite or by contract, to meet 100% of the fuel needs of the alternative fuel fleet. 	<p>Modified from LEED HC SS Credit 4.3: Alternative Transportation: Low Emitting & Fuel Efficient Vehicles</p>

Innovation in Operations

Title	Intent	Credit Goals	Source
IN 1.1-1.4 Innovation in Operations	Provide facilities' operations, management, and upgrade teams the opportunity to achieve points for achieving environmental and health benefits beyond those already addressed by the <i>Green Guide for Health Care Operations</i> section.	<ul style="list-style-type: none"> Identify the intent of the proposed innovation credit, the proposed credit goals, the additional environmental benefits delivered and the performance metrics used to document the additional environmental benefits delivered over a minimum one-year period. Successful innovation credit proposals shall require and track continuous improvement. 	Modified from LEED EB 2008 IN c1: Innovation in Operations
IN 2.1 Documenting Sustainable Operations Cost Impacts: Overall Operating Costs	Document sustainable building operations cost impacts to increase awareness of the benefits of green facilities operations.	<ul style="list-style-type: none"> Document overall building operating costs for the previous five years (or length of building occupancy, if shorter), and track changes in overall building operating costs over a minimum one-year period. Compile building operating cost and financial impacts for a minimum of five implemented Green Guide credits on an ongoing basis. <p>OR</p> <ul style="list-style-type: none"> Annually conduct a triple bottom line sustainability report. 	Modified from LEED EB 2008 IN c3: Documenting Sustainable Building Cost Impacts
IN 2.2 Documenting Sustainable Operations Cost Impacts: Absenteeism & Health Care Cost Impacts	Document absenteeism, staff retention, health care costs and other impacts of sustainable building performance improvements.	<ul style="list-style-type: none"> Document the history of absenteeism, staff retention, and health care costs for full-time equivalent (FTE) staff for the previous five years (or length of building occupancy with a minimum of 12 months). Track changes in absenteeism, staff retention, and health care costs (claim costs and any reductions in premium costs should be provided if available) for full-time equivalent (FTE) staff relative to the pursuit of minimum five <i>Green Guide for Health Care</i> credits and set annual goals for improvement. 	New to GGHC
IN 3 Research Initiatives	Expand the body of knowledge around the long-term impact of sustainable operations initiatives by participating in third party research projects.	<ul style="list-style-type: none"> Engage in public, third party research initiatives to help discover the impact that sustainable building performance improvements have on building occupants, the local community, and/or the global environment. Correlate research metrics with <i>Green Guide for Health Care</i> credits or equivalent green operations strategies. 	New to GGHC