

SECTION 018113

SUSTAINABLE DESIGN REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general requirements and procedures for compliance with USGBC's LEED prerequisites and credits needed for Project to obtain LEED Silver certification based on USGBC's "LEED v4 for Building Design and Construction" for Schools (hereafter, LEED v4 BD+C).
1. Specific requirements for LEED are also included in other Sections.
 2. Other LEED prerequisites and credits needed to obtain LEED certification depend on product selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests and comparable product requests.
 3. A copy of LEED Project checklist is attached at end of this Section for information only.
 - a. Some LEED prerequisites and credits needed to obtain indicated LEED certification depend on Architect's design and other aspects of Project that are not part of the Work of the Contract.

1.2 DEFINITIONS

- A. ANSI/BIFMA e3 Furniture Sustainability Standard: Standard addressing environmental and social impacts throughout the furniture supply chain.
- B. Bio-Based Materials: Products containing some percentage of biologically renewable resource.
- C. BUG Rating Method: The BUG rating of a fixture determines how much light trespass is produced by considering backlight (B), uplight (U), and glare (G).
- D. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001. Certificates to include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
- E. Cradle to Cradle: Product certification assessing material health, material reutilization, renewable energy and carbon management, water stewardship, and social fairness.

- F. Declare: A product transparency disclosure that identifies material source, composition, and end-of-life procedures.
- G. Environmental Product Declaration (EPD): A transparency reporting tool communicating what a product is made of and the environmental impact.
- H. Extended Producer Responsibility: A waste management strategy promoting integration of the life-cycle costs associated with goods into the market price of products. Typically, this involves a take-back or recycling program run by manufacturer at the end of the product's lifespan.
- I. Fact: Standard evaluating sustainability of furniture products over the product life cycle.
- J. Health Product Declaration (HPD): Disclosure of products contents and associated health information.
- K. LEED: USGBC's "LEED v4 for Building Design and Construction." Definitions that are part of this document apply to this Section.
- L. Living Product Challenge: A product framework for manufacturers examining place, water, energy, health, materials, and equity in production of materials.
- M. Manufacturer Inventory: A published, complete content inventory for products.
- N. Product Lens: Transparency disclosure highlighting hazard information.
- O. REACH Optimization: International standard outlining hazardous substances of high concern to be avoided in material composition.
- P. Recycled Content: The recycled content value of a material assembly to be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.
 - 1. "Postconsumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
 - 2. "Preconsumer" material is defined as material diverted from the waste stream during the manufacturing process. Reutilization of materials (such as rework, regrind, or scrap, generated in a process and capable of being reclaimed within the same process that generated it) is excluded.
- Q. Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) contributes to the regional value.
- R. WaterSense Label: The WaterSense label from the EPA specifies water efficiency and performance.

- S. Whole-Building Life-Cycle Assessment: The Life Cycle Assessment (LCA) is a methodology that evaluates the carbon and other environmental impacts of building materials over the projected lifespan of the building.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site. Review sustainability goals, municipal and state sustainability requirements, LEED objectives, and action plans for meeting requirements.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Respond to questions and requests from Architect about USGBC's LEED prerequisites and credits that are Contractor's responsibility, that depend on product selection or product qualities, or that depend on Contractor's procedures, until USGBC has made its determination on Project's LEED certification application.
- B. Submit documentation to USGBC and respond to questions and requests from USGBC about its LEED prerequisites and credits that are Contractor's responsibility, that depend on product selection or product qualities, or that depend on Contractor's procedures, until USGBC has made its determination on Project's LEED certification application.
 - 1. Document correspondence with USGBC as informational submittals.

1.5 ACTION SUBMITTALS

- A. General: Submit sustainable design submittals required by other Sections. Include LEED submittal form for each product. Sample included at end of this section.
- B. Sustainable design submittals are in addition to other submittals.
 - 1. If submitted item is identical to that submitted to comply with other requirements, include additional copy with other submittal as a record of compliance with indicated LEED requirements instead of separate sustainable design submittal. Mark additional copy "Sustainable design submittal."
- C. Sustainable Design Documentation Submittals:
 - 1. Plumbing submittal packages.
 - 2. Mechanical submittal packages.
 - 3. EPDs complying with LEED requirements.
 - 4. Documentation for products that comply with LEED requirements for multi-attribute optimization.
 - 5. Sustainability reports for products that comply with LEED requirements for sourcing of raw materials.

6. Material ingredient reports for products that comply with LEED requirements for material ingredient reporting.
7. Documentation for products that comply with LEED requirements for material ingredient optimization.
8. Documentation complying with Section 017419 "Construction Waste Management and Disposal."
9. Product data for adhesives and sealants used inside the weatherproofing system, indicating VOC content and laboratory test reports showing compliance with requirements for low-emitting materials.
10. Product data for paints and coatings used inside the weatherproofing system, indicating VOC content and laboratory test reports showing compliance with requirements for low-emitting materials.
11. Laboratory test reports for flooring, indicating compliance with requirements for low-emitting materials.
12. Laboratory test reports for wall materials, indicating compliance with requirements for low-emitting materials.
13. Laboratory test reports for ceilings, indicating compliance with requirements for low-emitting materials.
14. Laboratory test reports for insulation, indicating compliance with requirements for low-emitting materials.
15. Laboratory test reports for furniture, indicating compliance with requirements for low-emitting materials.
16. Laboratory test reports for products containing composite wood or agrifiber products or wood glues, indicating compliance with requirements for low-emitting materials.
17. Acoustical documentation for classroom materials showing an NRC of 0.70 or higher.
18. Construction Indoor Air Quality (IAQ) Management:
 - a. Construction IAQ management plan.
 - b. Product data for temporary filtration media.
 - c. Product data for filtration media used during occupancy.
 - d. Construction Documentation: Six photographs at three different times during construction period, along with a brief description of SMACNA approach employed, documenting implementation of IAQ management measures, including protection of ducts and on-site stored or installed absorptive materials.
19. IAQ Assessment:
 - a. Signed statement describing the building air flush-out procedures, including dates when flush-out was begun and completed and statement that filtration media was replaced after flush-out.
 - b. Product data for filtration media used during flush-out and occupancy.
 - c. Report from testing and inspecting agency indicating results of IAQ testing and documentation showing compliance with IAQ testing procedures and requirements.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For LEED coordinator.
- B. Project Materials Cost Data: Provide statement indicating total cost for materials used for Project. Costs exclude labor, overhead, and profit. Include breakout of costs for the following categories of items:
 - 1. Plumbing.
 - 2. Mechanical.
 - 3. Electrical.
 - 4. Specialty items such as elevators and equipment.
- C. Sustainable Design Action Plans: Provide preliminary submittals within 30 days of date established for the Notice to Proceed, indicating how the following requirements will be met:
 - 1. Erosion and Sedimentation Plan including procedure for reporting of Erosion and Sedimentation Control Plan weekly reports.
 - 2. List of proposed products with EPDs.
 - 3. List of proposed products complying with requirements for multi-attribute optimization.
 - 4. List of proposed products complying with requirements for sourcing of raw materials.
 - 5. List of proposed products complying with requirements for material ingredient reporting.
 - 6. List of proposed products complying with requirements for material ingredient optimization.
 - 7. Waste management plan complying with Section 017419 "Construction Waste Management and Disposal."
 - 8. Construction IAQ management plan.
 - 9. IAQ assessment plan.
- D. Sustainable Design Progress Reports: Concurrent with each Application for Payment, submit reports comparing actual construction and purchasing activities with sustainable design action plans.

1.7 QUALITY ASSURANCE

- A. LEED Coordinator: Engage an experienced LEED AP to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Provide products and procedures necessary to obtain LEED credits indicated as Contractor's responsibility. Although other Sections may specify some requirements that contribute to these LEED credits, Contractor provides additional materials and procedures necessary to obtain LEED credits indicated.
- B. At least 20 different products from at least five different manufacturers have EPDs that comply with LEED requirements. Product-specific Type III EPDs are valued as one and one-half of a product.
- C. At least 10 percent, by cost, of permanently installed products for Project comply with LEED requirements for multi-attribute optimization.
- D. At least 20 different products from at least five different manufacturers have publically released reports that comply with LEED requirements for sourcing of raw materials.
- E. At least 20 different products from at least five different manufacturers comply with LEED requirements for material ingredient reporting.
- F. At least 10 percent, by cost, of permanently installed products for Project comply with LEED requirements for material ingredient optimization.
- G. Materials with an NRC of 0.70 or higher.
- H. Recycled Content: Building materials have recycled content such that postconsumer recycled content plus one-half of preconsumer recycled content for Project constitutes a minimum of 15 percent of cost of materials used for Project.
 - 1. Cost of postconsumer recycled content plus one-half of preconsumer recycled content of an item to be determined by dividing weight of postconsumer recycled content plus one-half of preconsumer recycled content in the item by total weight of the item and multiplying by cost of the item.
 - 2. Do not include plumbing, mechanical and electrical components, and specialty items, such as elevators and equipment, in the calculation.

2.2 LOW-EMITTING MATERIALS

- A. Provide material cost and quantities of all products (in liters)
- B. Paints and Coatings: For field applications, 75 percent of paints and coatings meet the VOC emissions evaluation and 100 percent meet the VOC content evaluations.

- C. Adhesives and Sealants: For field applications, 75 percent of adhesives and sealants meet the VOC emissions evaluation and 100 percent meet the VOC content evaluations.
- D. Flooring: A minimum of 90 percent of flooring products meet the VOC emissions evaluation or inherently non-emitting sources criteria or salvaged and reused materials criteria. Subflooring is excluded.
- E. Walls: A minimum of 75 percent of wall panel products meet the VOC emissions evaluation or inherently non-emitting sources criteria or salvaged and reused materials criteria. Wall panel products include wall paneling, wall coverings, wall tile, surface wall structures, cubicle/curtain/partition walls, trim, doors, frames, windows, and window treatments. Removable/interchangeable fabric panels, built-in cabinetry, and vertical structural elements are excluded.
- F. Ceilings: A minimum of 90 percent of ceilings meet the VOC emissions evaluation or inherently non-emitting sources criteria or salvaged and reused materials criteria. Ceiling products include ceiling panels, ceiling tile, surface ceiling structures, suspended systems, and glazed skylights. Overhead structural elements are excluded.
- G. Insulation: A minimum of 75 percent of insulation products meet the VOC emissions evaluation. Insulation products include all thermal and acoustic boards, batts, rolls, blankets, sound attenuation fire blankets, foamed-in-place, loose-fill, blown, and sprayed insulation. HVAC duct and plumbing piping insulation are excluded.
- H. Furniture: A minimum of 75 percent of furniture meets the furniture emissions evaluation or inherently non-emitting sources or salvaged and reused materials criteria. All standalone furniture is included.
- I. Composite Wood: A minimum of 75 percent of all composite wood meet the formaldehyde emissions evaluation or salvaged and reused materials criteria. Composite wood materials include particleboard, MDF, hardwood veneer plywood, and structural composite wood.

PART 3 - EXECUTION

3.1 NONSMOKING BUILDING

- A. Smoking is not permitted within the building or within 25 ft. (8 m) of entrances, operable windows, or outdoor-air intakes. Provide construction signage for all employees on site.

3.2 CONSTRUCTION WASTE MANAGEMENT

- A. Comply with Section 017419 "Construction and Demolition Waste Management and Disposal."

3.3 CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT

- A. Comply with SMACNA's "SMACNA IAQ Guideline for Occupied Buildings under Construction."
 - 1. If Owner authorizes use of permanent heating, cooling, and ventilating systems during construction period as specified in Section 015000 "Temporary Facilities and Controls," install MERV 8 filter media at each return-air inlet for the air-handling system used during construction.
 - 2. Replace air filters immediately prior to occupancy with new filters specified in Division 23 Heating, Ventilating and Air Conditioning.

3.4 INDOOR AIR QUALITY (IAQ) ASSESSMENT

- A. Flush-Out:
 - 1. After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying a total volume of 14,000 cu. ft. (4 300 000 L) of outdoor air per sq. ft. (sq. m) of floor area while maintaining an internal temperature of at least 60 deg F (16 deg C) and a relative humidity no higher than 60 percent.
 - a. Approximately 18 days are required for the full Flushout of the building.
 - 2. If occupancy is desired prior to flush-out completion, the space may be occupied following delivery of a minimum of 3500 cu. ft. (1 070 000 L) of outdoor air per sq. ft. (sq. m) of floor area to the space. Once a space is occupied, it is ventilated at a minimum rate of 0.30 cfm per sq. ft. (1.52 L/s per sq. m) of outside air or the design minimum outside-air rate prerequisite, whichever is greater. During each day of the flush-out period, ventilation begins a minimum of three hours prior to occupancy and continues during occupancy. These conditions are maintained until a total of 14,000 cu. ft./sq. ft. (4 300 000 L/sq. m) of outside air has been delivered to the space.
 - a. Air-Quality Testing: Engage testing agency to perform the following:
 - 3. Conduct baseline IAQ testing, after construction ends and prior to occupancy, using testing protocols consistent with the EPA's "Compendium of Methods for the Determination of Air Pollutants in Indoor Air," and as additionally detailed in USGBC's "LEED v4 Reference Guide for Building Design and Construction."
 - 4. Demonstrate that contaminant maximum concentrations listed below are not exceeded:
 - a. Carbon Monoxide: 9 ppm and no greater than 2 ppm above outdoor levels.
 - b. Particulates (PM10): 50 mcg/cu. m.
 - c. Particulates (PM2.5): 50 mcg/cu. m.
 - d. Ozone: 0.07 ppm, in accordance with ASTM D5149.
 - e. Formaldehyde: 20 mcg/cu. m.

- f. Acetaldehyde: 140 mcg/cu. m.
 - g. Benzene: 3 mcg/cu. m.
 - h. Hexane: 7000 mcg/cu. m.
 - i. Naphthalene: 9 mcg/cu. m.
 - j. Phenol: 200 mcg/cu. m.
 - k. Styrene: 900 mcg/cu. m.
 - l. Tetrachloroethylene: 35 mcg/cu. m.
 - m. Toluene: 300 mcg/cu. m.
 - n. Vinyl Acetate: 200 mcg/cu. m.
 - o. Dichlorobenzene: 800 mcg/cu. m.
 - p. Xylenes - Total: 700 mcg/cu. m.
5. For each sampling point where the maximum concentration limits are exceeded, take corrective action until requirements have been met.
6. Air-sample testing to be conducted as follows:
- a. All measurements to be conducted prior to occupancy but during normal occupied hours, and with building ventilation system starting at the normal daily start time and operated at the minimum outside airflow rate for the occupied mode throughout the duration of the air testing.
 - b. Building to have all interior finishes installed, including, but not limited to, millwork, doors, paint, carpet, and acoustic tiles. Nonfixed furnishings such as workstations and partitions are encouraged, but not required, to be in place for the testing.
 - c. Number of sampling locations varies depending on the size of building and number of ventilation systems. For each portion of building served by a separate ventilation system, the number of sampling points to not be less than one per 5000 sq. ft. (465 sq. m).
 - d. Air samples to be collected between 3 and 6 ft. (0.9 and 1.8 m) from the floor to represent the breathing zone of occupants, and over a minimum four-hour period.
- B. Coordinate all Commissioning Activities per Commissioning Specifications, both in Division 1 and in respective Spec Divisions.

END OF SECTION

Attachments:
LEED Data Reporting Form
LEED Checklist - Contractor

PRODUCT DATA REPORTING FORM for LEED v4 Projects

THIS FORM IS REQUIRED TO BE SUBMITTED WITH Product Data Submittals

You must include backup documentation such as SPECIFIC Product Data Sheets, Cut Sheets, Product Specific Letter from Manufacturer, etc. DO NOT INCLUDE GENERIC MARKETING MATERIAL

LEED PROJECT NAME: Crocker Elementary School
 SUBCONTRACTOR: _____
 Specification Section: _____ Submittal Number: _____

Project Product Data				Materials and Resources LEED Credits																	Low-Emitting Materials LEED Credits			
Spec Section	Product	Manufacturer	Product Costs ¹ (only exclude install labor) (\$)	MR EPD	Product Specific (PS) or Industry Wide (IW) Env. Product Declaration (EPD) ² ?	Third Party Certified?	FSC Certified ³ Wood Products? (%)	Post-Consumer Recycled Content ⁴ (%)	Pre-Consumer Recycled Content ⁵ (%)	Extended Producer Responsibility ⁶ Program Name?	Biobased Product? If yes, list %	Extracted, Manufactured, & Purchased within ⁷ 100 miles?	Manufacturer Inventory ⁸	Fully Declared HPD to 1000 ppm Declaration ⁹ included?	C2C version (2.1.1 or 3.0) Level of Certification ¹⁰	Declare Label ¹¹ with ingredient disclosure greater than 1000 ppm?	ANSI/BIFMA e3 Furniture Sustainability Standard ¹²	Cradle to Cradle Material Health Certificate ¹³	Product Lens ¹⁴	Facts - NSF/ANSI 338	Some Qualifying VOC Standards (More in Note 10): CDPH Standard Method v1.1 FloorScore: Hard Surfaces & Adhesives Green Label Plus: Carpet, Adhesive, Cushion UL Greenguard Gold: When Meeting CDPH Std. v1.1			
																					CDPH Emissions ¹⁶ testing compliant?	VOC Content ¹⁷ (g/L)	Wet-Applied Products Volume Used (L)	Wood Products are ULEF or NAUF ¹⁸ ?
Ex					PS / IW	Y/N	%	%	%	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	##	##	Yes / No
1																								
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7																								
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9																								

NOTES / DEFINITIONS:

- Furnish Costs include all expenses to deliver the material to the project site, including taxes, transport, fabrication and profit. Do not include site labor or installation.
- Environmental Product Declarations which conform to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930 and have at least a cradle to gate scope. <https://spot.ulprospector.com/en/na/BuiltEnvironment>
- Wood products must be certified by the Forest Stewardship Council (FSC) and must provide proof of vendor FSC Chain-of-Custody with this Product Data Submittal. <http://info.fsc.org/certificate.php>
- Post-Consumer Recycled Content: Sourced from recovered Consumer Waste and used as a raw material (e.g. plastic bottles, newspaper, etc).
- Pre-Consumer Recycled Content: Recovered Industrial Materials diverted from municipal solid waste for use in a different mfg. process, prior to use by a consumer. Note: "home scrap" from the original mfg. process that are reused / reprocessed do not qualify.
- Extended producer responsibility: Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility. (e.g. Closed Loop or Take Back Program)
- Within 100 miles distance is defined as travel by air to the project site, not travel distance by road. <http://www.distancefromto.net/>
- The manufacturer has published complete content inventory for the product following LEED v4 Guidelines.
- The end use product has a published, complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open Standard. <http://www.hpd-collaborative.org/hpd-public-repository/>
- The end use product has a published Cradle to Cradle product certification at the Bronze level or higher and at least 90% of materials are assessed by weight. <http://www.c2c.org> <http://www.c2ccertified.org/products/registry>
- The end use product has a Declare label indicating all ingredients have been disclosed and screened against the red list down to 1000 ppm. <https://access.living-future.org/declare-products>
- The end use product has documentation from the assessor or scorecard from BIFMA that demonstrates the product earned at least 3 points under 7.5.1.3 Advanced Level in e3-2014 or 3 points under 7.4.1.3 Advanced Level in e3-2012. <https://level.ecomedes.com/>
- The end use product has a published Cradle to Cradle Material Health certification at the Bronze level or higher and at least 90% of materials are assessed by weight. <http://www.c2c.org> <http://www.c2ccertified.org/products/mhregistry>
- The end use product has a published Product Lens certification. <https://spot.ulprospector.com/en/na/BuiltEnvironment>
- The end use product has a Sustainability Assessment for Commercial Furnishings Fabric at any certification level <https://spot.ulprospector.com/en/na/BuiltEnvironment>
- TVOC Emissions for Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1-2010 <http://www.usebc.org/resources/low-emitting-materials-third-party-certification-table>
- All paints and coatings wet-applied on site must meet applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011. All adhesives and sealants wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.
- Composite Wood Evaluation as defined by the California Air Resources Board (CARB), Airborne Toxic Measure to Reduce Formaldehyde Emissions from Composite Wood Products Regulation, must be documented to have low formaldehyde emissions that meet the CARB ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde (NAUF) resins.

I, _____ a duly authorized representative of _____ hereby certify that the material information submitted here is an accurate representation of the material to be provided under our contract.

EMAIL CONTACT FOR AUTHORIZED REPRESENTATIVE: _____ Direct Phone: _____
 SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____ DATE: _____



LEED v4 BD+C: New Construction

Project Checklist GOAL: SILVER

Crocker Elementary School

10-Oct-22

VIRIDIS
SUSTAINABLE BUILDING
CONSULTANCY LLC

Y	?	N	C			Requirements	LEED Required Documentation	Responsibility
Sustainable Sites								
Y			C	Prereq SSP2	Construction Activity Pollution Prevention	Required Create and implement an erosion and sedimentation control plan for all construction activities associated with the project. The plan must conform to the erosion and sedimentation requirements of the 2012 U.S. Environmental Protection Agency (EPA) Construction General Permit (CGP) or local equivalent, whichever is more stringent. Projects must apply the CGP regardless of size. The plan must describe the measures implemented.	Description of compliance with EPA CGP. Comparison of local standards and codes with EPA CGP. Description of how project complies with local standards and code. Drawings depicting erosion and sedimentation control measures implemented. Written declaration from general contractor or builder who implemented plan. Date-stamped photos. A description of plan implementation.	Civil Engineer/Contractor
5 1 2 Materials and Resources 8								
Y			C	Prereq MRp2	Construction and Demolition Waste Management Planning	Required Develop and implement a construction and demolition waste management plan: Establish waste diversion goals for the project by identifying at least five materials (both structural and non structural) targeted for diversion. Approximate a percentage of the overall project waste that these materials represent. Specify whether the materials will be separated or commingled and describe the diversion strategies planned for the project. Describe where the material will be taken and how the recycling facility will process the material. Provide a final report detailing all major waste streams generated including disposal and diversion rates. Alternative daily cover does NOT qualify as material diverted from disposal. Land clearing debris is NOT considered construction, demolition, or renovation waste that can contribute to waste diversion.	Construction waste management plan with estimated recycling waste in tons.	Contractor
1	1	1	C	Credit MRc2	Building Product Disclosure and Optimization - Environmental Product Declarations	2 Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet EPD requirements. Option 2 multi-attribute optimization - use products for 50% of cost that demonstrate impact reduction below industry average. Goal of 40 for Exemplary Performance and an additional	MR building product disclosure and optimization calculator or equivalent tracking tool. EPD and LCA reports for 100% of products contributing toward credit.	saam/Viridis/Contractor
1	1	1	C	Credit MRc3	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2 Option 2 Use products that meet at least one of the responsible extraction criteria for at least 25% by cost for take back program, bio based materials FSC wood materials reuse recycled content.	MR building product disclosure and optimization calculator, corporate sustainability reports for 100% of products contributing toward credit documentation of product claims for credit requirements. Recycled content of products. Evidence of take back programs.	saam/Viridis/Contractor
1	1	1	C	Credit MRc4	Building Product Disclosure and Optimization - Material Ingredients	2 Option 1. Use at least 20 different products from at least five different manufacturers that have demonstrated the chemical inventory of the product to at least .1% (1000 ppm). Goal of 40 for Exemplary Performance and an additional point.	MR building product disclosure and optimization calculator. Documentation of chemical inventory (HPD). Verification of Cradle to Cradle certification labels. Documentation of supply chain optimization.	saam/Viridis/Contractor
2			C	Credit MRc5	Construction and Demolition Waste Management	2 Recycle and/or salvage non hazardous construction and demolition materials by weight or volume. 75% and four material streams - 2 point.	MR construction and demolition waste management calculator, tracking total and diverted waste amounts and material streams. Documentation of recycling rates for commingled facilities.	saam/Viridis/Contractor
3 3 0 Indoor Environmental Quality 6								
Y			D	Prereq EQp2	Environmental Tobacco Smoke Control	Required Prohibit smoking by all occupants and users both inside and outside the building except in designated smoking areas. Post signage within 10 feet of all building entrances.	Description of projects no smoking policy including how policy is communicated to building occupants and enforced. Copy of no-smoking policy, signed letter from owner describing project's no-smoking policy and enforcement. Scaled site plan showing location of designated outdoor smoking and non smoking areas location of property line and site boundary and indicating 25 foot distance from building openings. Drawings photos or other evidence of signage communicating no smoking policy. Any code restrictions that prevent establishment of no smoking requirements.	Contractor/saam/Owner
2	1		C	Credit EQc2	Low-Emitting Materials	3 Achieve threshold level of compliance for VOC's for categories listed: Interior paints and coatings, interior adhesives and sealants, flooring, composite wood, ceilings walls thermal and acoustic insulation, furniture. Option 2 use budget calculation method rather than threshold. 2 categories = 1 pt, 4=2pt, 5=3pt	USGBC low emitting materials calculator. Product Information.	Contractor, saam/Viridis
1			C	Credit EQc3	Construction Indoor Air Quality Management Plan	1 Develop and implement an indoor air quality management plan for the construction and preoccupancy phases of the building. SMACNA IAQ Guidelines. Protect absorbent materials stored onsite and installed from moisture damage. Do not operate permanently installed air handling unless MERV8 filters with no bypass. Before occupancy replace filtration. Prohibit tobacco products.	IAQ management plan or detailed checklist highlighting non smoking policy. Narrative describing protection measure for absorbent materials. Annotated photographs of each IAQ measure. Record of filtration media.	Contractor, saam/Viridis
2			C	Credit EQc4	Indoor Air Quality Assessment	2 Install new filtration media and perform a building flushout out. Option 1 14,000 cubic feet per sf of gross floor area with 60-80 degrees and humidity no higher than 60%. Path 2 deliver 3,500 cf per sf before occupancy and continue flushout. Option 2 Air Testing 2 pts.	Flush out plan and report or IAQ testing report.	Contractor/engineer