



BSR/GBI 02-202X GREEN GLOBES® ASSESSMENT PROTOCOL FOR EXISTING BUILDINGS

This draft Standard by the Green Building Initiative (GBI) has a published schedule for regular publication of revisions, including procedures for timely, documented, consensus action on requests for change to any part of the Standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the GBI website (www.thegbi.org). The latest edition of the BSR/GBI 02-202X Green Globes Standard is free to download from the Green Building Initiative website (www.thegbi.org).

Disclaimer

BSR/GBI 02-202X, Green Globes Assessment Protocol for Existing Buildings (new standard) (hereby known as this Draft Standard) provides a method of assessing existing commercial and multifamily buildings in relation to commonly valued environmental and efficiency outcomes. This Standard is an assessment tool and does not purport to instruct users on the appropriate operations and maintenance, standards, applicable laws, codes, or regulations for their building. The use of this Standard does not expressly or implicitly establish the appropriate level of care of a licensed design or other professionals nor the appropriate duties and responsibilities of owners, operations, or maintenance personnel.

The Green Building Initiative (GBI) does not guarantee or warrant the actual performance of any building as a result of (1) the use of this Standard, or (2) a particular level of assessment indicated through the use of this Standard, whether through individual use or in conjunction with a provider of a third-party assessment. This Standard has been developed and structured to provide a general assessment tool for various attributes of buildings, including policies and procedures, as outlined in this Standard. This Standard is not an operations or maintenance tool or a quality or performance assurance system. Building systems, technology and operational best practices are constantly evolving and no building performance assessment system or tool, including this Standard, can account for these changes or the site-specific variances and limitations associated with individual buildings. The use of this Standard does not serve as a substitute for the work and advice of knowledgeable, licensed professionals, skilled construction personnel, building operators, and dedicated building owners.

GBI makes no representations about the results obtained from using this Standard. GBI, to the fullest extent permitted by law, disclaims all warranties of any kind, whether express or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, and non-infringement.

Information on the ANSI approved procedures used to develop this Standard can be found at www.thegbi.org or by emailing info@thegbi.org.

Special Notes

The Foreword and Appendix are informative only and do not contain mandatory requirements necessary for conformance to this Standard. As such, they may contain material that has not been subjected to public review or a consensus process. Sections V Definitions, Abbreviations, and Acronyms and VI References and Guidelines are informative only and are updated by the Secretariat upon the Consensus Body approval of all criteria.

Reference documents cited within the Standard are mandatory and are only to be applied within the context for which they are cited. Full acknowledgement and credit are given to the source organization for all references listed within this standard. Copies of the references and guidelines cited within this standard can be obtained from the full list of sources found in section VI. Incorporation of a reference is limited to the

edition of the publication that is cited within this standard. Future amendments or revisions of the reference are not included.

GBI publishes notices for meetings and calls for public comment in ANSI Standards Action as required. GBI has a list of stakeholders that will receive email announcements when any maintenance activity occurs to the recommended practice. GBI's website contains a place for new stakeholders to register.

Comments or proposals for revisions to any part of the Standard may be submitted to GBI at any time. The following person(s) may be contacted by those interested in submitting changes:

Emily Marx, Manager, Standards & Program Support, Green Building Initiative, 7805 S.W. 40th St., #80010, Portland, OR 97219 (we prefer all correspondence be sent electronically), E-mail: comment@thegbi.org; Phone: 503.274.0448 x103.

Foreword

Note that the information contained in this Foreword is not part of this Draft Standard. It does not contain requirements necessary for conformance to the Draft Standard. The Foreword is not subject to public review.

Green Building Initiative (GBI) is a nonprofit organization dedicated to improving the built environment and reducing climate impacts through exceptional education, tools, standards, and assessments that deliver sustainable, healthy, and resilient buildings. Green Globes is reviewed through an American National Standards Institute (ANSI) consensus process. ANSI has helped develop private sector standardization systems for over ~~90-100~~ years, focusing on requirements for openness, balance, consensus, and due process. We believe that green building certification should be flexible enough to encourage participation from every type of building. Our process encourages innovation while providing the most personalized green building certification experience in the market.

In 2005, GBI became the first building rating organization to become an ANSI Standards Developer. GBI used the ANSI process, recognized for being open, balanced, and consensus-based, to create ANSI/GBI 01-2010: Green Building Assessment Protocol for Commercial Buildings out of the Green Globes environmental design and assessment rating system for New Construction and Major Renovations. ANSI/GBI 01-2010 was revised and was most recently published in ~~spring 2019~~fall 2021. ANSI/GBI 01-~~2019-2021~~ is currently under the continuance maintenance process.

GBI owns the global rights to Green Globes®— a science-based, collaborative, and user-friendly assessment and rating system that provides a 3-in-1 evaluation of the environmental sustainability, health and wellness, and resilience of an individual building or an entire portfolio. Green Globes creates a roadmap for improving building performance and reducing climate impacts through a collaborative process supported by outstanding staff and expert assessors. Our third-party assessors personally visit properties to review progress toward compliance and certification, provide feedback on opportunities for improvement, and collaborate with project teams to ensure that buildings meet certification requirements and are on track to achieve sustainability goals. GBI has made the commitment to revise its Green Globes rating system using the ANSI consensus process and ANSI approved procedures.

Stakeholder Involvement

All meetings of the Subcommittees and Consensus Body for the Existing Buildings Draft standard are public. GBI accepts Consensus Body and Subcommittee applications for the Existing Buildings Draft standard year-round and maintains a queue of applicants to fill potential Consensus Body vacancies in three interest categories: User, Producer, and General Interest. The seven Subcommittees are: Environmental, Social, & Governance (ESG) Management, Site, Energy, Water, Materials, Indoor Environment Quality, and Point Allocation. Subcommittee members are not required to also be members of the Consensus Body for Existing Buildings and individuals may serve on more than one Subcommittee. GBI's Secretariat maintains an email list of interested Stakeholders used for updates on developments or opportunities to participate or comment. More information is available at <https://thegbi.org/green-building-standards/www.thegbi.org/ANSI>.

GBI Encourages Participation in Public Comment Periods

The public comment process is a critical element to developing an ANSI Standard. GBI encourages discussion and debate. ANSI consensus processes afford due process to every commenter. Commenters will receive communication from the Secretariat upon receipt of their comment and again following Consensus Body action on their comment. Public comment notices are published in ANSI Standards Action.

Comprehensive Not Rigid

One of the many strengths of the Green Globes' collaborative process is that it allows for sustainability improvements that best fit each specific project, rather than a rigid checklist of requirements that do not consider unique sites, building function, or innovation opportunities.

"Not applicables" play a prominent role in Green Globes' flexibility, allowing projects to indicate criteria that are not applicable to a building or project. For instance, if a local code supersedes a criterion in the Standard and/or if optional features (e.g., cooling towers, etc.) are not included in the project scope, then those criteria could be marked 'Not Applicable' removing those points from the denominator in determining percentages of points achieved.

The 1000 possible points are strategically allocated to direct projects toward criteria considered most critical in the reduction of a building's environmental impacts, as well as criteria that maximize a building's opportunity to have a positive impact on a community and its occupants. The new point distribution "weights" the Assessment Areas as follows:

- Environmental, Social, & Governance (ESG) Management (107 points)
- Site (~~95~~100 points)
- Energy (310 points)
- Water (185 points)
- Materials (~~100~~93 points)
- Indoor Environmental Quality (~~203~~205 points)

Consistent with GBI-01-~~2019~~2021, the Draft Standard, does not contain mandatory criteria. Instead, additional weighting occurs within each Assessment Area to encourage pursuit of criteria considered to be most impactful. Every building that achieves Green Globes certification under these proposed revisions must achieve a minimum of 35% of the total applicable points.

Through point weightings, the Draft Standard encourages users to earn the highest number of applicable points for the building type, size, and budget, while using the flexibility built into the system to keep on track with the owners' goals and objectives, the building functionality, and the potential for deconstruction or repurposing of the building. Project teams achieving One Green Globes level of certification on their first project may strive for higher levels of achievement and recognition in future projects through assessor recommendations and lessons learned. The Draft Standard is designed to encourage incremental achievements that take buildings beyond minimum compliance requirements while incentivizing teams to innovate and strive for One, Two, Three or Four Green Globes, thereby going beyond code to achieve real-world results.

Technical Advances

Reviewers of this Draft Standard will find many notable items that advance the art, form, and definition of what constitutes a green building. Additional information concerning criteria can be found in the Technical Manual under Informational References, Recommended Documents, Assessment Guidance and ToolTips.

Areas now open to public comment include the following topics:

Environmental, Social, & Governance (ESG) Management

- Operations & Maintenance
- Resilience
- Social Management

Site

- Site Decontamination
- Site Improvement
- Light Pollution
- Safety

Energy

- Three-Five paths provided for assessing energy performanceconsumption
- Prescriptive Energy Measures
- Energy Maintenance & Management
- Sustainable Energy

Water

- Three paths for Water Consumption
- Prescriptive Water Measures

Materials

- Renovations & Procurement
- Recycling & Waste

Indoor Environmental Quality

- IEQ Systems & Measures
- Hazard Mitigation
- Hazard Prevention
- Lighting
- Thermal Comfort
- Acoustical Privacy & Comfort
- Occupant Health & Wellness

Minimum Requirements

GBI sets minimum requirements for its Draft Standard and rating systems based on commonly valued environmental and efficiency outcomes, benchmarking against other global rating systems, analysis of federal, state, and local policies, as well as from public input. GBI will be having discussions of minimum requirements with a separate public input process.

To achieve compliance and final certification under the ANSI/GBI-02 Standard and when using Green Globes® rating systems, each project must meet all jurisdictional requirements, achieve at least 35% of applicable points out of 1000 possible points, and complete third-party assessment by the certifying body, the Green Building Initiative, sole owner of the global rights to Green Globes. Specific protocols under the Green Globes suite of tools, such as Green Globes Multifamily, may have additional and more stringent minimum requirements that are periodically updated. To obtain information on minimum compliance requirements, please visit www.thegbi.org or inquire at info@thegbi.org.

If you are interested in submitting input to GBI on minimum requirements for compliance with this Standard or any Green Globes program or protocol, please contact Emily Marx, Manager, GBI Standards & Program Support, at emarx@thegbi.org. All notification of public input processes related to GBI programs will be sent to GBI's stakeholders' community, which you can join by completing a stakeholder application at <https://thegbi.org/green-building-standards/www.thegbi.org/ANSI>.

How to Submit Public Comments

Calls for public comment will be published in ANSI Standards Action. Anyone wishing to submit a comment will be asked to complete a public comment form located at <https://thegbi.org/green-building-standards/www.thegbi.org/ANSI>. To submit a proposal for a substantive change to the Draft Standard commenters must be specific about the change they are requesting and provide a reason. Commenters are expected to copy and paste a section of the Draft Standard into the comment form and use ~~strike through~~ and underline to identify suggested deletions and additions to the text.

Learn more about the public comment process or review GBI's ANSI-approved procedures at <https://thegbi.org/green-building-standards/www.thegbi.org/ANSI>. For more information on upcoming calls for public comment or to request a public comment form, please contact the Secretariat at comment@thegbi.org.

Who Should Use This Draft Standard

Property owners/operators, green building consultants, developers, contractors, lenders, institutions, various levels of government, tenants, occupants, and facility managers and maintenance personnel can apply this Standard to a broad range of commercial building types—such as office, multifamily, health care, schools, universities, laboratories, industrial, and retail. The Standard does not apply to single-family homes, two-family homes and townhouses that are three stories or less in height.

BSR/GBI 02-202x, *Green Globes Assessment Protocol for Existing Building* may include prescribed levels of achievement that government agencies or other entities wishing to establish specific criteria may consider when adopting this Draft Standard. GBI also develops customized tools for governments to comply with government-specific requirements or other codes and standards. An example is GBI's unique Guiding Principles Compliance program, which is customized for use by federal agencies for compliance with Executive Orders and "High Performance and Sustainable Building" mandates.

To learn more about current Green Globes tools, visit www.thegbi.org. To learn about participation in GBI's Standard development and ANSI consensus processes, visit <https://thegbi.org/green-building-standards/www.thegbi.org/ANSI> or contact GBI's Secretariat at comment@thegbi.org.

TABLE OF CONTENTS

I.	PURPOSE.....	9
II.	SCOPE.....	9
III.	NOT APPLICABLES.....	9
IV.	ASSESSMENT OF COMPLIANCE.....	9
V.	DEFINITIONS, ABBREVIATIONS, AND ACRONYMS.....	10
1.	ENVIRONMENTAL, SOCIAL, & GOVERNANCE (ESG) MANAGEMENT (107 points).....	16
2.	SITE (95-100 points).....	23
3.	ENERGY (310 points).....	31
4.	WATER (185 points).....	49
5.	MATERIALS (100-93 points).....	60
6.	INDOOR ENVIRONMENTAL QUALITY (203-205 points).....	66
VI.	REFERENCES AND GUIDELINES.....	82

I. PURPOSE

This Draft Standard provides a method for assessing existing commercial and multifamily buildings relative to the tenets of integrated design and contemporary best practices for high-performance green buildings. This assessment method addresses the evaluation of buildings with respect to reducing life cycle resource consumption, waste, and global/regional/local environmental impacts; contributing to human and ecological system health; and providing performance feedback to owners and communities on indicators such as energy and water performance.

II. SCOPE

This Draft Standard applies to a broad range of existing commercial and multifamily building types, including offices, multifamily, health care, schools, universities, laboratories, industrial, retail, etc. The Standard does not apply to single-family homes, two-family homes, and townhouses that are three stories or less in height.

The Draft Standard includes a points-based assessment and rating system that allows users to identify solutions for actions likely to achieve performance levels commonly accepted for desirable environmental and related efficiency outcomes. The assessment criteria and rating system within the Draft Standard apply to existing commercial and multifamily buildings.

The six Assessment Areas within the Standard include Environmental, Social, & Governance (ESG) Management, Site, Energy, Water, Materials, and Indoor Environmental Quality.

This Draft Standard shall not be used to circumvent any code, health, safety, security, or environmental requirements. It is the sole responsibility of the user of this Draft Standard to establish appropriate safety and health practices, to comply with required building codes, and to assess the applicability of criteria based on other possible regulatory limitations prior to use.

III. NOT APPLICABLES

Each environmental assessment area contains certain criteria that a delivery team may deem “Not Applicable” to the building. Selecting “Not Applicable” may be appropriate in the following circumstances as denoted in Table III:

TABLE III

Justifications for Use of Not Applicable Criteria	
1	If a criterion does not apply to the building type (e.g., if there are no oil fired burners on site, questions related to oil fired burners would be designated Not Applicable).
2	If a code or regulation overrides, conflicts with, or otherwise prevents compliance with a criterion.
3	If a criterion conflicts with best practices based on regional climatic differences.

Questions without a Not Applicable option should be answered as appropriate for the building.

IV. ASSESSMENT OF COMPLIANCE

Assessment of compliance can be established through a third-party review of appropriate written plans, working drawings, operational plans, maintenance schedules, specifications, site plans, energy modeling, life

cycle assessment results, commissioning reports, *construction documents* and/or other data or documents that demonstrate conformance.

V. DEFINITIONS, ABBREVIATIONS, & ACRONYMS

V.I DEFINITIONS

Note: *Italicized words found throughout this Draft Standard indicate that a definition for the term can be found in the Definitions Section. Definitions not found in this section may be found in referenced standards contained in this Draft Standard, and the user shall adhere to the meanings as defined in those standards. Other terms not defined in this Section or in referenced standards contained in this Draft Standard shall have their ordinarily accepted meanings within the context in which they are used. Ordinarily accepted meanings are based upon American Standard English language usage as documented in a comprehensive dictionary. Where definitions in this Draft Standard differ from those in a reference standard or any other source, definitions found in this Draft Standard shall be used.*

AARP Livability Index (Neighborhood Category only): a measure of community livability on a scale of 0-100. The American Association of Retired Persons (AARP) is a nonprofit, nonpartisan organization that empowers people to choose how they live as they age. The livability index for a site can be publicly accessed at <https://livabilityindex.aarp.org/>.

adaptive plumbing system monitoring and control device: A type of *water leak detection device* that utilizes sensor inputs to continuously monitor the hydraulic conditions and intelligently adapts to remotely report expected normal vs abnormal plumbing system states.

Bike Score®: measures whether a location is good for biking on a scale of 0-100 of any address using a patented system. For each address, Bike Score® analyzes four equally weighted components: bike lanes, hills destinations and road connectivity, and bike commuting mode share. Bike Score® is maintained by Walk Score® Management, LLC part of Redfin Corporation. The score can be publicly accessed for a site at <https://www.walkscore.com/>.

biobased content: that portion of a material or product derived from plants and other renewable agricultural, marine, and/or forestry resources. *Biobased content* does not include animal feed, food, or biofuels.

~~**commissioning:** a process for enhancing the delivery of a project. The process assesses and documents that the facility, systems, and/or assemblies are planned, designed, installed, tested, and can be operated and maintained to meet the Owner's Project Requirements.~~

building envelope: the element of a building that separates the conditioned interior space from the exterior, such as walls, roofs, floors, slabs, foundations, doors, and fenestration.

building product: building elements and systems categorized as exterior walls, internal partitions, windows, interim floors, roofs, beams, and columns.

~~**resilience:** the ability to withstand and recover rapidly from adverse events and to adapt to changing environmental conditions.~~

clear views: direct, unobstructed visual sightlines from a seated or standing position inside the building to a point at least 20 ft. (6.1 m) outside the building allowing occupants exposure to sunlight and a visual connection to nature and the outdoors. Adjustable shading devices for glare control shall not be considered an obstruction.

commissioning: a process for enhancing the delivery of a project. The process assesses and documents that the facility, systems, and/or assemblies are planned, designed, installed, tested, and can be operated and maintained to meet the Owner's Project Requirements.

construction documents: all the written and graphic documents (including BIM, CAD, and other electronic files) prepared or assembled by the architect/engineer for communicating the design and administering the project. The term "*Construction documents*" also includes the Project Manual that contains the bidding forms and instructions, contract forms and conditions, and specifications, as well as documentation of all modifications made after the construction agreements are signed.

cycle renovation: a periodic evaluation/assessment and update (not including regular maintenance) of an existing space, group of spaces, or systems.

daylighting: the integration of natural light for an enhanced connection to nature and to minimize the need for artificial lighting during the day using strategies such as effective orientation and placement of windows, use of light wells, light shafts or tubes, skylights, clerestory windows, light shelves, reflective surfaces, and shading, and the use of interior glazing to allow light into adjacent spaces.

existing building: a building or portion thereof that was previously occupied or approved for occupancy by the authority having jurisdiction.

graywater: untreated wastewater that has not come into contact with toilet waste, kitchen sink waste, dishwasher waste or similarly contaminated sources. *Graywater* includes wastewater from bathtubs, showers, and bathroom wash basins, clothes washers, and laundry tubs.

indoor environmental quality: refers to the quality of the air and environment inside buildings, based on pollutant concentrations and conditions that can affect the health, comfort, and performance of occupants—including temperature, relative humidity, light, sound, and other factors.

integrated pest management: the use of different techniques to control pests, used singly or in combination, such as selection of pest-resistant plant varieties, regular monitoring for pests, use of pest-resistant materials or use of natural predators of the pest, to control pests, with an emphasis on methods that are least injurious to the environment and most specific to the particular pest.

~~**lavatory fixture(s):** a fitting that controls the flow of water into a washbowl or basin plumbing fixture located within the confinements of a bathroom or toilet room and used for the sole purpose of personal hygiene.~~

overhang: a horizontal projection for a window or wall.

~~**ozone depletion potential (ODP):** a number that refers to the amount of ozone depletion caused by a substance. The *ODP* is the ratio of the impact on ozone of a chemical compared to the impact of a similar mass of CFC 11. Thus, the *ODP* of CFC 11 is defined to be 1.0. Other CFCs and HCFCs have *ODPs* that range from 0.01 to 1.0. The halons have *ODPs* ranging up to 10. Carbon tetrachloride has an *ODP* of 1.2, and methyl chloroform's *ODP* is 0.11. HFCs have zero *ODP* because they do not contain chlorine. Manufacturers publish tables of all ozone depleting substances showing their *ODPs*, *GWPs*, and *CAS numbers*.~~

permeable strategies: infiltrate, treat, and/or store *rainwater* where it falls.

post-consumer recycled content: the portion of recycled material, in a product, 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. *Post-consumer recycled content* includes returns of materials from the distribution chain.

potable water: water that meets the requirement of the authority having jurisdiction and is satisfactory for drinking, culinary, and domestic purposes.

pre-consumer recycled content: the portion of recycled material in a product diverted from the waste stream during a manufacturing process. Materials that have been reutilized (i.e., reworked, reground, or scrap generated in a process and capable of being reclaimed within the same process that generated it) are excluded.

occupied rooms: a room or enclosed space designed for human occupancy in which individuals perform activities for which the space has been specifically designed.

rainwater: untreated water from natural precipitation that has not been contaminated by use. Can be utilized through rainwater harvesting.

remediation: cleanup or other methods used to remove or contain a toxic spill, contamination, or hazardous material.

renewable energy: energy that is continuously replenished on the Earth, such as wind, solar thermal, solar electric, geothermal, hydropower, and various forms of biomass used in a sustainable manner ~~derived from the sun, wind, water, or geothermal sources.~~

renovation: changing in-kind, strengthening, refinishing, or replacing of structural elements or upgrading of existing materials, equipment and/or fixtures.

resilience: the ability to withstand and recover rapidly from adverse events and to adapt to or cope with changing environmental conditions.

reusable goods: goods that can be used more than once without modification or refurbishment.

reuse: to use an object, material, or resource again, either for its original purpose or a similar purpose, without significantly altering the physical form of the object or material.

risk: the probability that a product formulation, article or constituent chemical will cause an unacceptable hazardous or toxic human health or safety, or ecological effect under the intended exposure and use conditions.

risk assessment: a scientific screening-level analysis that determines *risk*, based upon constituent hazards, dose and exposure assessments, and *risk* characterization.

salvaged material: discarded or unused construction materials or products removed from a structure or a site that have value and can be directly substituted for new materials or products with minimal reprocessing.

~~**service life:** the expected lifetime of a product.~~

State of Place Index: a walkability and quality of place score from 0-100. It is based on 290 features of the built environment – like sidewalks, benches, street trees, and land uses – data that is collected block by block. It indicates how walkable – convenient, safe, pleasurable, and livable – a block, group of blocks, or neighborhood is. The index value for a site is determined by a proprietary algorithm maintained by State of Place, Inc. who can be contacted at <https://www.stateofplace.co/>.

stormwater: natural precipitation that has contacted a surface at, below (channels storm drainpipes), or above (elevated roadways) grade.

sub-meter: a metering subdivision of the energy, water, gas, or sound that records the use of the metered subject by specific building systems and equipment.

task lighting: light that is directed to a specific surface or area to provide illumination for visual tasks.

UVGI system: a system for disinfection of air, water and object surfaces that uses radiation with a wavelength in the UV-C range (100 nm to 280 nm) to kill or inactivate microorganisms and viruses.

variable occupancy: a variance of 30% from design occupancy for a minimum of 30% of normally occupied hours.

Walk Score®: measures the walkability on a scale of 0-100 of any address using a patented system. For each address, Walk Score® analyzes hundreds of walking routes to nearby amenities. Points are awarded based on the distance to amenities in each category. Walk Score® is maintained by Walk Score® Management, LLC part of Redfin Corporation. The score can be publicly accessed for a site at <https://www.walkscore.com/>. It is a score that is developed through Walk Score®, a public access walkability methodology that assigns a walkable score to addresses in Canada, United States, and Australia.

water leak detection device: A plumbing appurtenance that monitors a water supply and distribution system in order to detect and report unusual conditions that may cause water waste.

V.II ABBREVIATIONS & ACRONYMS

AARP American Association of Retired Persons

© 2021 Green Building Initiative, Inc. (www.thegbi.org). For personal use only. Additional reproduction, distribution or transmission in either print or digital form is not permitted without Green Building Initiative's prior written permission.

AED	Automated External Defibrillator
AHU	Air-Handling Unit
ANSI	American National Standards Institute
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
<u>ASTM</u>	<u>ASTM International, formerly American Society for Testing and Materials</u>
BAS	Building Automation System
BEES	Building for Environmental and Economic Sustainability
CAS	Chemical Abstracts Service
CCT	Correlated Color Temperature
CMR	Carcinogenic, Mutagenic, Or Reprotoxic
CRI	Color Rendering Index
CSR	Corporate Social Responsibility
DF	Daylight Factor
DHW	Domestic Hot Water
DOAS	Distributed <u>Dedicated</u> Outdoor Air System
EMS	Environmental Management System
EPA	U.S. Environmental Protection Agency
EPD	Environmental Product Declarations
ESG	Environmental, Social, & Governance
<u>EV</u>	<u>Electric Vehicle</u>
GWP	Global Warming Potential
<u>FEMP</u>	<u>Federal Energy Management Program</u>
HCS	Hazard Communication Standard

HEPA High Efficiency Particulate Air (Filter)

HPD Health Product Declaration

IAQ Indoor Air Quality

IEQ Indoor Environmental Quality

IES Illumination Engineering Society of North America

IPM Integrated Pest Management

ISO International Organization for Standardization

LCCA Life-Cycle Cost Analysis

MERV Minimum Efficiency Reporting Values

MUA Make-Up Air

NIST National Institute of Standards and Technology

~~**ODP** Ozone Depleting Potential~~

SDS Safety Data Sheet

~~**VDT** Visual Display Terminals~~

VOC Volatile Organic Compounds

ENVIRONMENTAL ASSESSMENT AREAS

1. ENVIRONMENTAL, SOCIAL, & GOVERNANCE (ESG) MANAGEMENT (107 POINTS)

1.1 OPERATIONS & MAINTENANCE (49 POINTS)

1.1.1 ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) DOCUMENTATION	
1.1.1.1 There is an integrated team and process that regularly reviews the Environmental Management System (EMS).	5 points
1.1.1.2 There is a comprehensive written and fully implemented building environmental management plan and program, including a policy statement and a comprehensive structure based around an EMS.	5 4 points
<p>1.1.1.3 The following building related goals and targets are documented in the building environmental management plan:</p> <p>1.1.1.3.1 Energy conservation</p> <p>1.1.1.3.2 Water conservation</p> <p>1.1.1.3.3 Waste reduction and recycling</p> <p>1.1.1.3.4 <u>CO₂ equivalent (e) emission reduction</u></p> <p>1.1.1.3.5 Environmental purchasing</p> <p>1.1.1.3. 5-6 Schedule for regular checks on air-handling units, cooling towers, boilers, chillers, and/or applicable HVAC system(s) and other significant energy consuming equipment</p> <p>1.1.1.3. 6-7 Indoor Air Quality (IAQ)</p> <p>1.1.1.3. 7-8 Reduction in use and proper handling of toxic or hazardous products</p> <p>1.1.1.3. 8-9 Training and education</p>	<p>Maximum = 8 points</p> <p><u>One point is earned for each target for a maximum of eight points.</u></p> <ul style="list-style-type: none"> • One point is earned for 1.1.1.3.1. • One point is earned for 1.1.1.3.2. • One point is earned for 1.1.1.3.3. • One point is earned for 1.1.1.3.4. • One point is earned for 1.1.1.3.5. <ul style="list-style-type: none"> ○ Not applicable if there are no air handling units, cooling towers, boilers, chillers, and/or applicable HVAC system(s) and other significant energy consuming equipment. • One point is earned for 1.1.1.3.6. • One point is earned for 1.1.1.3.7. <ul style="list-style-type: none"> ○ Not applicable if there are no toxic or hazardous products. • <u>One point is earned for 1.1.1.3.8.</u> • <u>One point is earned for 1.1.1.3.9.</u>
1.1.1.4 There are action plans based on measurement and performance data, operational controls and monitoring, <u>thermal comfort reporting</u> , and incident records to improve the environmental and energy performance of the building.	5 4 points

<p>1.1.1.5 There are preventive maintenance programs for building systems and areas, which improve performance and the indoor environment.</p> <p>1.1.1.5.1 There is a preventative maintenance program for HVAC and ventilation systems.</p> <p>1.1.1.5.2 There is a regular maintenance schedule and cleaning policy for light fixtures.</p> <p>1.1.1.5.3 There is a detailed cleaning schedule in place to ensure that high dusting, cleaning of ventilation vents and detail cleaning of kitchen appliances including microwaves, <u>water dispensers</u>, stoves, ovens, and refrigerators, if applicable.</p>	<p><u>Maximum = 7 points</u></p> <ul style="list-style-type: none"> ○ 3<u>Three</u> points are earned for 1.1.1.5.1. ○ 2<u>Two</u> points are earned for 1.1.1.5.2. • 2<u>Two</u> points are earned for 1.1.1.5.3.
<p>1.1.1.6 There are regular procedures for detecting and fixing water leaks.</p>	<p>2 points</p> <ul style="list-style-type: none"> • Not applicable if there are no water utilities.
<p>1.1.1.7 There is a regular maintenance and cleaning program for the cooling tower(s) that includes monthly inspection for evidence of mold, dirt, or slime.</p>	<p>2 points</p> <ul style="list-style-type: none"> • Not applicable if there are no cooling towers.
<p>1.1.1.8 If spray humidification is used, there is a regular maintenance schedule for cleaning the system and verifying that it is free of rust, algae, or loose contaminants of any kind.</p>	<p>1 point</p> <ul style="list-style-type: none"> • Not applicable if a steam humidification system or no humidification is used.
<p>1.1.1.9 For public restrooms:</p> <p>1.1.1.9.1 There is a regular cleaning schedule available and posted for the public restrooms that includes a verification system.</p> <p>1.1.1.9.2 There are signs posted to promote handwashing in public restrooms.</p>	<p>Maximum = 2 points</p> <ul style="list-style-type: none"> • One point is earned for 1.1.1.9.1. <ul style="list-style-type: none"> ○ Not applicable if there are no public restrooms. • One point is earned for 1.1.1.9.2. <ul style="list-style-type: none"> ○ Not applicable if there are no public restrooms.

1.1.1.10 Landlord and tenant/s enter into a lease that monitors and manages the following:

- Energy performance
- Water performance
- Waste
- CO₂ equivalent (e) emissions
- Commuting
- MERV Filtration
- Cleaning Schedules

1.1.1.10.1 Contract provisions require the maintenance and/or improvement as measured in models or over baselines.

1.1.1.10.2 Contract provisions require monitoring, collection, and monitoring of data/usage from tenants and common areas.

Maximum = 2 Points

- One point is earned for 1.1.1.10.1.
- One point is earned for 1.1.1.10.2.
- Not applicable if owner-occupied, unoccupied or MURB.

1.1.2 OPERATIONS & MAINTENANCE TRAINING

1.1.2.1 There is a formal building operation and energy conservation training program set up for facility staff members and new hires.

3 points

1.1.2.2 There is reoccurring training received by facility staff members that includes updates about building operations and energy conservation measures implemented and recorded.

3 points

1.1.2.3 Building management and relevant staff are trained to implement an *Indoor Environmental Quality* (IEQ) program that includes identifying, preventing, and solving indoor air quality (IAQ) issues and addresses thermal, acoustic, and lighting comfort based upon building occupant concerns.

3 points

1.1.2.4 Education and training is provided for management, staff, and contractors working with chemicals, toxic products, or hazardous materials.

3 points

- Not applicable if there are no chemicals, toxic products, and hazardous materials will not be used on site.

1.2 RESILIENCE (52 POINTS)

1.2.1 RISK ASSESSMENT & FACILITY ADAPTATION

1.2.1.1 A multi-hazard *risk assessment* has been completed for the building and location that includes as a minimum the following ~~current and future~~ risks or hazards as applicable:

3 points

1.2.1.1.1 Floods (coastal storm surge, tidal, pluvial/*stormwater*, or fluvial/riverine)

1.2.1.1.2 Seismic events (earthquake, volcanism, and/or resulting tsunami)

1.2.1.1.3 Landslides and avalanches

1.2.1.1.4 Severe weather (wind, tornado, hail, lighting, snow, ice-storms, drought, or severe heat or cold)

1.2.1.1.5 Wildfires

1.2.1.1.6 Man-made risks (explosion, ~~terrorism~~terrorist act, or poison release)

1.2.1.1.7 Health issues (e.g., pandemics, or sanitation issues in the aftermath of a disaster)

1.2.1.1.8 Infrastructure disruptions (loss of energy, water, sanitation, transportation, or communications service)

1.2.1.1.9 Changes to geology and/or groundwater conditions that affect or disrupt infrastructure and/or facility function

1.2.1.2 A risk ~~analysis~~assessment has been completed for 1.2.1.1 for each ~~climate change~~-associated risk or hazard, ~~current and future~~.

Maximum = 4 points

- One point is earned for each risk assessed in 1.2.1.1 for a maximum of 4 points.

1.2.1.3 The assessment evaluates building functional requirements and prioritizes accordingly for future facility resiliency modifications ~~adaptation~~.

3 points

1.2.2 EMERGENCY PROCEDURES, RESPONSE, & FACILITY UPGRADES

1.2.2.1 The following emergency response procedures are in place:

Maximum = 8 points

1.2.2.1.1 Documented procedures readily available in case of emergency.

- Two points are earned for 1.2.2.1.1.
- Two points are earned for 1.2.2.1.2.
- Two points are earned for 1.2.2.1.3.
- Two points are earned for 1.2.2.1.4.

<p>1.2.2.1.2 Staff trained to deal with and obtain prompt assistance for emergencies such as fire, spills, power failures and illness.</p> <p>1.2.2.1.3 An automated emergency notification system</p> <p>1.2.2.1.4 A current schedule for a designated first responder to be available during work hours.</p>	<p>○ <u>Not applicable for residential spaces.</u></p>
<p>1.2.2.2 The emergency plans refer to all applicable legislation regarding emergency procedures, reporting and record-keeping.</p>	<p>3 points</p>
<p>1.2.2.3 There is a readily available database of onsite equipment to deal with environmental emergencies and business interruption.</p>	<p>3 points</p>
<p>1.2.2.4 There is a plan in place for continuation of building function and operation based on identified <i>risks</i>.</p>	<p>3 points</p>
<p>1.2.2.5 There is a site map showing the location of environmentally significant features that are a potential <i>risk</i> to building occupants.</p>	<p>2 points</p>
<p>1.2.2.6 There is a regularly inspected Automated External Defibrillator (AED) installed within the building.</p>	<p>1 point</p>
<p>1.2.2.7 The following have taken place in response to current and future <i>risks</i> or hazards:</p> <p>1.2.2.7.1 Funding is available to minimize <i>risks</i> and hazards as identified in a current multi-<i>risk</i> hazard assessment.</p> <p>1.2.2.7.2 Schematics, and/or <i>construction documents</i> for facility adaptation <u>resilience</u>.</p> <p>1.2.2.7.3 Facility <u>resilience</u> adaptation upgrades and <i>renovation(s)</i> have been completed that minimize the <i>risk</i> of hazards.</p>	<p>Maximum = 10 points</p> <ul style="list-style-type: none"> • Three points are earned for 1.2.2.7.1. • Three points are earned for 1.2.2.7.2. <ul style="list-style-type: none"> ○ Not applicable if current multi-hazard <i>risk assessment</i> shows no need for facility adaptation upgrades, <i>renovations</i>, or other fixes. • Four points are earned for 1.2.2.7.3. <ul style="list-style-type: none"> ○ Not applicable if current multi-hazard <i>risk assessment</i> shows no need for facility adaptation upgrades, <i>renovations</i>, or other fixes.

1.2.3 BUILDING OCCUPANT ENVIRONMENTAL TRAINING & COMMUNICATIONS

<p>1.2.3.1 There is a communications strategy with building occupants and applicable visitors regarding</p>	<p>3 points</p>
--	-----------------

environmental and health and wellness initiatives and practices in their building and a process to respond to building occupant and applicable visitors' concerns.	
<p>1.2.3.2 There are communications to building occupants on the environmental measures that they can implement in the building to contribute to the following:</p> <p>1.2.3.2.1 Energy conservation</p> <p>1.2.3.2.2 <u>Water conservation</u></p> <p>1.2.3.2.3 Waste reduction and recycling</p> <p>1.2.3.2.3.4 Proper handling, storage, and disposal of toxic or hazardous products</p> <p>1.2.3.2.5 <u>IAQ</u></p> <p>1.2.3.2.6 <u>CO₂ equivalent (e) emission reduction</u></p>	<p>Maximum = 6 points</p> <ul style="list-style-type: none"> • <u>One</u> Two points are <u>is</u> earned for 1.2.3.2.1. • <u>One</u> Two points are <u>is</u> earned for 1.2.3.2.2. • <u>One</u> Two points are <u>is</u> earned for 1.2.3.2.3. • <u>One</u> point is earned for 1.2.3.2.4. • <u>One</u> point is earned for 1.2.3.2.5. • <u>One</u> point is earned for 1.2.3.2.6.
1.2.3.3 A building occupant and/or visitor satisfaction survey has been completed in the last 3 years.	3 points

1.3 SOCIAL MANAGEMENT (6 POINTS)

1.3.1 EQUITY & INCLUSIVENESS	
1.3.1.1 Ownership/stakeholders have a written policy <u>and/or action plan</u> in place to support diversity, equity, and inclusion <u>(DEI)</u> .	1 point
1.3.1.2 Ownership/stakeholders invest in the local community, <u>socially and/or environmentally</u> .	1 point

1.3.2 SOCIAL & GOVERNANCE	
1.3.2.1 Ownership/stakeholders engage in social and governance best practices.	1 point
1.3.2.2 The organization issues a CSR (Corporate Social Responsibility) or ESG (Environmental, Social, Governance) report on an annual or regular basis.	1 point
1.3.2.3 The CSR or ESG report is publicly available.	1 point

1.3.2.4 The report aligns with an industry standard for disclosures and includes a materiality and climate *risk* or *resilience* assessment.

1 point

2. SITE (~~95-100~~ POINTS)

2.1 SITE DECONTAMINATION (30 POINTS)

2.1.1 Site Pollution

Path A, B, or C

Three paths are available for determining a site's pollution status.

- **2.1.1A Path A: Environmental Site Assessment:** Up to 30 points
- OR
- **2.1.1B Path B: Site Undergoing *Remediation*:** Up to 20 points
- OR
- **2.1.1C Path C: Completed *Remediation* Approved:** Up to 30 points

Points cannot be combined between paths. Select one of the paths below. There is no N/A option.

2.1.1A PATH A: ENVIRONMENTAL SITE ASSESSMENT

2.1.1A.1 The site was evaluated for conditions indicative of releases or threatened releases of hazardous substances, pollutants and contaminants, petroleum or petroleum products or controlled substances on, at, in, or to the site.

Maximum = 30 points

- ~~20~~Twenty points are earned if no conditions were identified by a Phase I Environmental Site Assessment (ESA) conducted in accordance with ASTM E1527 and ASTM E1528.
- ~~30~~Thirty points are earned if all identified conditions were below cleanup objectives or action levels set by the government authority having jurisdiction when measured by a Phase II ESA to determine their extent and spatial distribution in accordance with ASTM E1903.

OR

2.1.1B PATH B: SITE UNDERGOING *REMEDIATION*

2.1.1B.1 The site has conditions that exceed cleanup objectives or action levels set by the government authority having jurisdiction, but a *remediation* plan was prepared and has been approved by the government authority.

20 points

- Twenty points are earned if there is a contractual or other legal commitment to implement and complete the approved *remediation* plan.

OR

2.1.1C PATH C: COMPLETED REMEDIATION APPROVED

2.1.1C.1. The site has completed *remediation* for conditions identified pursuant to a Phase II ESA to determine their extent and spatial distribution in accordance with ASTM E1903.

30 points

- Thirty points are earned if the final *remediation* report has been approved by the government authority having jurisdiction.

2.2 SITE IMPROVEMENT (65-60 POINTS)

2.2.1 SITE ENHANCEMENT

2.2.1.1 There are indications that the site has been enhanced by activities, such as an increase of indigenous species or the re-establishment of corridors to provide wildlife habitat.

5 points

- Not applicable if the building footprint occupies >80% of the site.

2.2.1.2 The site has achieved sustainability certification from a nationally or regionally recognized site certification program within the last four years.

5 points

2.2.1.3 A comprehensive site plan has been developed and implemented that includes all areas of site improvement, including as applicable floodplain impacts, access to walking trails, bike paths, outdoor respite, and outdoor community spaces (i.e., community gardens, farmers' markets, etc.) on or adjacent to the building or campus.

Maximum = 5 points

- Two points are earned for developing a plan.
- Three points are earned for implementing or dedicating funding for the plan.

2.2.1.4 The following strategies are used to reduce *stormwater* runoff ~~over and above municipal requirements~~:

Maximum = 5 points

2.2.1.4.1 *Permeable strategies* are used to reduce water run-off from roofs.

2.2.1.4.2 *Permeable strategies* are used to reduce water run-off from hardscaping.

2.2.1.4.3 Filtration of water runoff is accomplished through a comprehensive hydrology plan.

2.2.1.4.4 Roof drains are disconnected from sanitary or combined sewers.

- One point is earned for 2.2.1.4.1.
- One point is earned for 2.2.1.4.2.
- Two points are earned for 2.2.1.4.3.
- ~~Two~~ One points ~~are~~ is earned for 2.2.1.4.4.

2.2.2 EXISTING SITES	
2.2.2.1 A transportation assessment has been completed.	<p>4 points</p> <ul style="list-style-type: none"> Not applicable if the building is unoccupied.
2.2.2.2 The distance <u>along public sidewalks and bike lanes/paths</u> to the closest public transit stop is <u>less than</u> within at least 1 mile (1.6 km).	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> Five points are earned when the closest transit stop is within 0.5 mile (0.8 km). Two points are earned when the closest transit stop is within 1 mile (1.6 km). No points are earned when the closest transit stop is further than 1 mile (1.6 km). Not applicable if the building is unoccupied.
2.2.2.3 There is a main or secondary building entrance located accessibly within 0.5 mile (0.8 km) to pedestrian traffic and public transit stop(s).	<p>4 2 points</p> <ul style="list-style-type: none"> Not applicable if the building is unoccupied.
2.2.2.4 There are public or private transit service <u>within 0.5 mile (0.8 km)</u> available for building <u>users at reduced costs</u> staff for commuting .	<p>3 points</p> <ul style="list-style-type: none"> Not applicable if the building is unoccupied.
<p>2.2.2.5 The following are incorporated in the project:</p> <p>2.2.2.5.1 Secure bike shelters for minimum 10% of occupants</p> <p>2.2.2.5.2 Bike paths/lanes <u>that connect the site to the surrounding community</u></p> <p>2.2.2.5.3 Changing facilities with lockers and/or showers</p>	<p>Maximum = 6 points</p> <ul style="list-style-type: none"> Two points are earned for 2.2.2.5.1. Two points are earned for 2.2.2.5.2. Two points are earned for 2.2.2.5.3. No points are earned if none are incorporated. Not applicable if the building is unoccupied.
2.2.2.6 Other measures have been enacted to reduce car dependency (e.g., car pooling, scooters, bike paths/lanes, purchase of transit passes) .	<p>5 2 points</p> <ul style="list-style-type: none"> Not applicable if the building is unoccupied.

2.2.2.7 ~~WALKABILITY~~ OCCUPANT ACCESS

Path A, B, ~~or C, or D~~

~~Three~~ Four paths are available for assessing a site's ~~walkability~~ occupant access.

- **2.2.2.7A Path A: *Walk Score*®:** Up to 5 points
- OR
- **2.2.2.7B Path B: *State of Place Index*:** Up to 5 points
- OR
- **2.2.2.7C Path C: *AARP Livability Index*:** Up to 5 points
- OR
- **2.2.2.7D Path D: *Bike Score*®:** Up to 5 points

Points cannot be combined between paths. Select one of the paths below. If building is unoccupied, select a Path and select N/A.

2.2.2.7A PATH A: *WALK SCORE*®

2.2.2.7A.1 The *Walk Score*® is at least 50.

Maximum = 5 points

- Five points are earned for a ≥ 90 to ≤ 100 *Walk Score*®.
- Four points are earned for an ≥ 80 to ≤ 89 *Walk Score*®.
- Three points are earned for a ≥ 70 to ≤ 79 *Walk Score*®.
- Two points are earned for a ≥ 60 to ≤ 69 *Walk Score*®.
- One point is earned for a ≥ 50 to ≤ 59 *Walk Score*®.
- No points are earned for a *Walk Score*® < 50 .
- Not applicable if the building is unoccupied.

OR

2.2.2.7B PATH B: *STATE OF PLACE INDEX*

2.2.2.7B.1 The *State of Place Index* score is at least 40.

Maximum = 5 points

- Five points are earned for a ≥ 90 to ≤ 100 *State of Place Index* score.
- Four points are earned for an ≥ 80 to ≤ 89 *State of Place Index* score.
- Three points are earned for a ≥ 70 to ≤ 79 *State of Place Index* score.

- Two points are earned for a ≥ 60 to ≤ 69 *State of Place Index* score.
- One point is earned for a ≥ 40 to ≤ 59 *State of Place Index* score.
- No points are earned for a *State of Place Index* score < 40 .
- Not applicable if the building is unoccupied.

OR

2.2.2.7C PATH C: AARP LIVABILITY INDEX

2.2.2.7C.1 The Neighborhood category of the AARP Livability score is at least 50.

Of the seven categories that make up the index the Neighborhood category index is used for the scoring in this criterion.

Maximum = 5 points

- Five points are earned for a ≥ 90 to ≤ 100 *Livability* score.
- Four points are earned for an ≥ 80 to ≤ 89 *Livability* score.
- Three points are earned for a ≥ 70 to ≤ 79 *Livability* score.
- Two points are earned for a ≥ 60 to ≤ 69 *Livability* score.
- One point is earned for a ≥ 50 to ≤ 59 *Livability* score.
- No points are earned for a *Livability* score < 50 .
- Not applicable if the building is unoccupied.

OR

2.2.2.7D PATH D: Bike Score®

2.2.2.7D.1 The Bike Score® is at least 50.

Maximum = 5 points

- Five points are earned for a ≥ 90 to ≤ 100 Bike Score®.
- Four points are earned for an ≥ 80 to ≤ 89 Bike Score®.
- Three points are earned for a ≥ 70 to ≤ 79 Bike Score®.
- Two points are earned for a ≥ 60 to ≤ 69 Bike Score®.
- One point is earned for a ≥ 50 to ≤ 59 Bike Score®.

- No points are earned for a *Bike Score*® <50.
- Not applicable if the building is unoccupied.

Complete regardless of the path chosen above.

2.2.2.8 ~~Onsite private parking spaces are EV ready and/or are equipped with electric charging stations.~~ Parking areas have EV charging spaces and the electric infrastructure to support expansion of current EV charging stations (EV ready).

For example, EV ready includes conduits in place to support installation of charging stations.

Maximum = 8 points

- Four points are earned for buildings when ≥5% of onsite parking spaces are equipped with electric charging stations.
- Two additional points are earned for buildings when ≥10% of onsite parking spaces are equipped with electric charging stations. ~~Eight~~
- Two points are earned for buildings when ≥5% (minimum of 1) of private onsite parking spaces are EV ready and/or are equipped with electric charging stations.
- ~~Four points are earned for buildings when ≥5% to <10% (minimum of 1) of private onsite parking spaces are EV ready and/or are equipped with electric charging stations.~~
- Not applicable if the building is regularly unoccupied or does not have **private** onsite parking.

2.2.2.9 A management policy is in place to employ bird-safe measures.

5 points

2.3 LIGHT POLLUTION (5 POINTS)

2.3.1 EXTERIOR LIGHT POLLUTION

Two paths are available for assessing exterior light pollution.

• **2.3.1A Path A: Lighting Design Performance Method: 5 points**

OR

• **2.3.1B Path B: Prescriptive Method Lighting Requirements: Up to 5 points**

Points cannot be combined between paths. Select one of the paths below.

2.3.1A PATH A: LIGHTING DESIGN PERFORMANCE METHOD

2.3.1A.1 An engineer or lighting professional creates a lighting design that meets all the performance requirements of the IDA - IES Model Lighting Ordinance (MLO), Tables D (Initial Lumens), AND Table E (Additional Lumen Allowances) AND Table F (Maximum Vertical Illuminance on the Property Line), 2011.

5 points or N/A

- Not applicable where there is no site lighting.

OR

2.3.1B PATH B: PRESCRIPTIVE METHOD LIGHTING REQUIREMENTS

2.3.1B.1 Exterior lighting does not exceed prescribed values for the amount of light per unit of area per IDA – IES Model Lighting Ordinance (MLO), Tables A (Parking Space Method) or B (Hardscape Area Method) AND Table F (Maximum Vertical Illuminance on the Property Line), 2011.

1 point or N/A

- Not applicable where there is no exterior lighting.

2.3.1B.2 Exterior lighting trespass does not exceed prescribed Backlight, Uplight and Glare (BUG) ratings as per IDA – IES Model Lighting Ordinance (MLO), Table C (C-1, C-2, and C-3), 2011 for the following:

3 points or N/A

- Backlight;
- Uplight; and
- Glare.

- Not applicable where there is no exterior lighting.

2.3.1B.3 Parking lot lighting does not emit light above 90 degrees from the vertical axis.

1 point or N/A

- Not applicable where there is no parking lot lighting.

2.4 SAFETY (5 POINTS)

2.4.1 EXTERIOR LIGHTING SAFETY

2.4.1.1 Orientation and Wayfinding, all exterior vertical and horizontal illuminances fall within the specified range per Table A-1 in Annex A of ANSI/IES RP-43-21, *Recommended Practice: Lighting Exterior Applications*, 2021.

2 points or N/A

- Not applicable where there is no site lighting.

2.4.1.2 Glare Reduction, exterior luminaires provide 55° cutoff above the horizontal plane. Exception for luminaires installed for the purpose of illuminating art, buildings, or trees.

1 point or N/A

	<ul style="list-style-type: none"> • <u>Not applicable when luminaires are installed for the purpose of illuminating art, buildings, or trees or where there is no site lighting.</u>
<p><u>2.4.1.3 Color Rendering, exterior luminaires provide 80 or greater Color Rendering Index OR IES TM-30 Rf (Fidelity) of 80 and Rg (Gamut) of 85. Exception for luminaires installed for the purpose of illuminating art, buildings, or trees.</u></p>	<p><u>1 point or N/A</u></p> <ul style="list-style-type: none"> • <u>Not applicable when luminaires are installed for the purpose of illuminating art, buildings, or trees or where there is no site lighting.</u>
<p><u>2.4.1.4 For the safety and reassurance of pedestrians, uniformity is critical to ensure appropriate lighting of all contents within the same field of view. Exterior uniformity shall be 4:1 (Max:Avg) or greater for LZ0 or 20:5:1 (Max:Avg:Min) or greater for LZ1, LZ2, LZ3, and LZ4.</u></p>	<p><u>1 point or N/A</u></p> <ul style="list-style-type: none"> • <u>Not applicable where there is no site lighting.</u>

3. ENERGY (~~185-310~~ POINTS)

3.1 ENERGY PERFORMANCE (~~100-125~~ POINTS)

3.1.1 ENERGY CONSUMPTION

Path A, B, ~~or C~~, D, or E

~~Three-Five~~ paths are available for assessing energy consumption.

- **3.1.1A Path A: Improvement over Baseline:** Up to ~~100-125~~ points
- OR
- **3.1.1B Path B: ENERGY STAR® Benchmarking:** Up to ~~100-125~~ points
- OR
- **3.1.1C Path C: Alternative Building Energy Performance Metric:** Up to ~~100-125~~ points
- OR
- **3.1.1D Path D: ASHRAE Building EQ:** Up to 125 points
- OR
- **3.1.1E Path E: Net Zero Carbon or Energy Certification:** 125 points

Points cannot be combined between paths. Select one of the paths below. ~~If the building is eligible for an ENERGY STAR Score, then Path A (Improvement Over Baseline) or Path B (ENERGY STAR Score) must be pursued. If the building is not eligible for an ENERGY STAR score and Path A cannot be pursued (refer to the Assessment Guidance in the Technical Manual), then Path C (Alternative Building Energy Performance) can be pursued. Please note, manufacturing/industrial plants are eligible for an ENERGY STAR Score.~~

Buildings may also make a regression to other sources of peer data such as CBECS, I2SL, or industry group data for an ENERGY STAR equivalency by pursuing Path C if the building type is not eligible for the other Paths.

3.1.1A PATH A: IMPROVEMENT OVER BASELINE

3.1.1A.1 There is at least a 15% reduction in the building's energy over a 5-year benchmarking period or 6 to 10-year benchmarking period.

Maximum = ~~100-125~~ points

- ~~100~~ One hundred twenty-five points are earned for a >45% reduction over a 5-year benchmarking period.
- ~~86~~ One hundred five points are earned for a ≥41% to ≤45% reduction over a 5-year benchmarking period.
- ~~71~~ Eighty-five points are earned for a ≥36% to <41% reduction over a 5-year benchmarking period.
- ~~56~~ Sixty-five points are earned for a ≥31% to <36% reduction over a 5-year benchmarking period.

- ~~43-Fifty~~ points are earned for a $\geq 26\%$ to $< 31\%$ reduction over a 5-year benchmarking period.
 - ~~28-Thirty-five~~ points are earned for a $\geq 21\%$ to $< 26\%$ reduction over a 5-year benchmarking period.
 - ~~13-Twenty~~ points are earned for a $\geq 15\%$ to $< 21\%$ reduction over a 5-year benchmarking period.
 - No points are earned for a $< 15\%$ reduction over a 5-year benchmarking period.
-
- ~~80-One hundred~~ points are earned for a $> 45\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~65-Eighty~~ points are earned for a $\geq 41\%$ to $\leq 45\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~50-Sixty~~ points are earned for a $\geq 36\%$ to $< 41\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~35-Forty~~ points are earned for a $\geq 31\%$ to $< 36\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~20-Twenty-five~~ points are earned for a $\geq 26\%$ to $< 31\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~12-Fifteen~~ points are earned for a $\geq 21\%$ to $< 26\%$ reduction of the 6 to 10-year benchmarking period.
 - ~~6-Eight~~ points are earned for a $\geq 15\%$ to $< 21\%$ reduction of the 6 to 10-year benchmarking period.
 - No points are earned for a $< 15\%$ reduction of the 6 to 10-year benchmarking period.

OR

3.1.1B PATH B: ENERGY STAR® BENCHMARKING

3.1.1B.1 The ENERGY STAR® score of the building is 75 or greater.

Maximum = ~~100-125~~ points

- ~~100~~ One hundred twenty-five points are earned for an ENERGY STAR® score of 95 to 100.
- ~~88~~ One hundred ten points are earned for an ENERGY STAR® score of 90 to 94.
- ~~68~~ Eighty-five points are earned for an ENERGY STAR® score of 85 to 89.
- ~~52~~ Sixty-five points are earned for an ENERGY STAR® score of 80 to 84.
- ~~40~~ Fifty points are earned for an ENERGY STAR® score of 75 to 79.
- No points are earned for an ENERGY STAR® score of 74 or below.

OR

3.1.1C PATH C: ALTERNATIVE BUILDING ENERGY PERFORMANCE METRIC

3.1.1C.1 The building's current standing as compared to average performance for the building type is at least 75.

Maximum = ~~100~~ 125 points

- ~~100~~ One hundred twenty five points are earned when the building's current standing is 95 to 100.
- ~~88~~ One hundred ten points are earned when the building's current standing is 90 to 94.
- ~~68~~ Eighty-five points are earned when the building's current standing is 85 to 89.
- ~~52~~ Sixty-five points are earned when the building's current standing is 80 to 84.
- ~~40~~ Fifty points are earned when the building's current standing is 75 to 79.
- No points are earned when the building's current standing is 74 or below.

OR

3.1.1D PATH D: ASHRAE BUILDING EQ

3.1.1D.1 The ASHRAE Building EQ in Operation rating is 85 or less.

Maximum = 125 points

- One hundred twenty-five points are earned when the building's ASHRAE Building EQ in Operation rating is 50 or less.
- One hundred twenty-one points are earned when the building's ASHRAE Building EQ in Operation rating is 51 to 53.

- One hundred sixteen points are earned when the building's ASHRAE Building EQ in Operation rating is 54 to 56.
- One hundred eleven points are earned when the building's ASHRAE Building EQ in Operation rating is 57 to 59.
- One hundred eight points are earned when the building's ASHRAE Building EQ in Operation rating is 60 to 62.
- One hundred four points are earned when the building's ASHRAE Building EQ in Operation rating is 63 to 65.
- Ninety points are earned when the building's ASHRAE Building EQ in Operation rating is 66 to 68.
- Seventy-six points are earned when the building's ASHRAE Building EQ in Operation rating is 69 to 71.
- Sixty-three points are earned when the building's ASHRAE Building EQ in Operation rating is 72 to 74.
- Forty-nine points are earned when the building's ASHRAE Building EQ in Operation rating is 75 to 77.
- Thirty-five points are earned when the building's ASHRAE Building EQ in Operation rating is 78 to 80.
- Twenty-one points are earned when the building's ASHRAE Building EQ in Operation rating is 81 to 83.
- Eight points are earned when the building's ASHRAE Building EQ in Operation rating is 84 to 85.
- No points are earned when the building's ASHRAE Building EQ in Operation rating is 86 or higher.

OR

3.1.1E PATH E: NET ZERO CARBON OR ENERGY CERTIFICATION

3.1.1E.1 The project has achieved a Net Zero Carbon or a Net Zero Energy certification from a nationally or regionally recognized certification program within the last three years. 125 points

3.2 PRESCRIPTIVE ENERGY MEASURES (**94-110** POINTS)

3.2.1 ENVELOPE

3.2.1.1 There is an energy-efficient opaque envelope.	Maximum = 4 points <ul style="list-style-type: none"> Four points are earned for 25% lower U or C value. Two points are earned for 10% lower U or C value. One point is earned when the project meets U or C value.
3.2.1.2 There are energy-efficient windows.	4 points
3.2.1.3 The current performance and condition of the <i>building envelope</i> has been assessed.	4 points <ul style="list-style-type: none"> Not applicable if the building is less than 8 years old.
3.2.1.4 The building has undergone envelope <i>commissioning, retro-commissioning, or recommissioning</i> .	3 points

3.2.2 LIGHTING

Path A or B

Two paths are available for assessing lighting efficiency.

- 3.2.2A Path A: Commercial & Institutional:** Up to 20 points
- OR
- 3.2.2B Path B: Residential & Hospitality Buildings:** Up to 20 points

Points cannot be combined between paths. Select one of the paths below.

3.2.2A PATH A: COMMERCIAL & INSTITUTIONAL

3.2.2A.1 At least 10% of the building interior is installed with LED and/or fluorescent lighting <u>OLED</u> (quantified by floor area).	Maximum = 20 points <ul style="list-style-type: none"> Twenty points are earned when the building interior is 100% LED <u>and/or OLED</u>. Eighteen points are earned when the building interior is ≥90% to <100% LED and/or <u>OLED ≤ 10% fluorescent</u>.
--	--

- Sixteen points are earned when the building interior is $\geq 80\%$ to $< 90\%$ LED and/or OLED $\leq 20\%$ to $> 10\%$ fluorescent.
- Fourteen points are earned when the building interior is $\geq 70\%$ to $< 80\%$ LED and/or OLED $\leq 30\%$ to $> 20\%$ fluorescent.
- Twelve points are earned when the building interior is $\geq 60\%$ to $< 70\%$ LED and/or OLED $\leq 40\%$ to $> 30\%$ fluorescent.
- Ten points are earned when the building interior is $\geq 50\%$ to $< 60\%$ LED and/or OLED $\leq 50\%$ to $> 40\%$ fluorescent.
- Eight points are earned when the building interior is $\geq 40\%$ to $< 50\%$ LED and/or OLED $\leq 60\%$ to $> 50\%$ fluorescent.
- Six points are earned when the building interior is $\geq 30\%$ to $< 40\%$ LED and/or OLED $\leq 70\%$ to $> 60\%$ fluorescent.
- Four points are earned when the building interior is $\geq 20\%$ to $< 30\%$ LED and/or OLED $\leq 80\%$ to $> 70\%$ fluorescent.
- Two points are earned when the building interior is $\geq 10\%$ to $< 20\%$ LED and/or OLED $\leq 90\%$ to $> 80\%$ fluorescent.
- No points are earned when the building interior is $< 10\%$ LED and/or OLED $> 90\%$ fluorescent.

OR

3.2.2B PATH B: RESIDENTIAL & HOSPITALITY BUILDINGS

3.2.2B.1 At least 10% of the common and amenity areas are installed with LED and/or OLED fluorescent lighting (quantified by floor area).

Maximum = 10 points

- Ten points are earned when common and/or amenity areas are 100% LED and/or OLED.
- Nine points are earned when common and/or amenity areas are $\geq 90\%$ to $< 100\%$ LED and/or OLED $\leq 10\%$ fluorescent.
- Eight points are earned when common and/or amenity areas are $\geq 80\%$ to $< 90\%$ LED and/or OLED $\leq 20\%$ to $> 10\%$ fluorescent.

	<ul style="list-style-type: none"> • Seven points are earned when common and/or amenity areas are $\geq 70\%$ to $< 80\%$ LED and/or OLED $\leq 30\%$ to $> 20\%$ fluorescent. • Six points are earned when common and/or amenity areas are $\geq 60\%$ to $< 70\%$ LED and/or OLED $\leq 40\%$ to $> 30\%$ fluorescent. • Five points are earned when common and/or amenity areas are $\geq 50\%$ to $< 60\%$ LED and/or OLED $\leq 50\%$ to $> 40\%$ fluorescent. • Four points are earned when common and/or amenity areas are $\geq 40\%$ to $< 50\%$ LED and/or OLED $\leq 60\%$ to $> 50\%$ fluorescent. • Three points are earned when common and/or amenity areas are $\geq 30\%$ to $< 40\%$ LED and/or OLED $\leq 70\%$ to $> 60\%$ fluorescent. • Two points are earned when common and/or amenity areas are $\geq 20\%$ to $< 30\%$ LED and/or OLED $\leq 80\%$ to $> 70\%$ fluorescent. • One point is earned when common and/or amenity areas are $\geq 10\%$ to $< 20\%$ LED and/or OLED $\leq 90\%$ to $> 80\%$ fluorescent. • No points are earned when common and/or amenity areas are $< 10\%$ LED and/or OLED $> 90\%$ fluorescent.
<p>3.2.2B.2 At least 10% of the residential unit or hotel rooms is installed with LED and/or fluorescent lighting OLED (quantified by floor area).</p>	<p>Maximum = 10 points</p> <ul style="list-style-type: none"> • Ten points are earned when residential unit or hotel rooms are 100% LED <u>and/or OLED</u>. • Nine points are earned when residential unit or hotel rooms are $\geq 90\%$ to $< 100\%$ LED and/or OLED $\leq 10\%$ fluorescent. • Eight points are earned when residential unit or hotel rooms are $\geq 80\%$ to $< 90\%$ LED and/or OLED $\leq 20\%$ to $> 10\%$ fluorescent.

- Seven points are earned when residential unit or hotel rooms are $\geq 70\%$ to $< 80\%$ LED and/or OLED $\leq 30\%$ to $> 20\%$ fluorescent.
- Six points are earned when residential unit or hotel rooms are $\geq 60\%$ to $< 70\%$ LED and/or OLED $\leq 40\%$ to $> 30\%$ fluorescent.
- Five points are earned when residential unit or hotel rooms are $\geq 50\%$ to $< 60\%$ LED and/or OLED $\leq 50\%$ to $> 40\%$ fluorescent.
- Four points are earned when residential unit or hotel rooms are $\geq 40\%$ to $< 50\%$ LED and/or OLED $\leq 60\%$ to $> 50\%$ fluorescent.
- Three points are earned when residential unit or hotel rooms are $\geq 30\%$ to $< 40\%$ LED and/or OLED $\leq 70\%$ to $> 60\%$ fluorescent.
- Two points are earned when residential unit or hotel rooms are $\geq 20\%$ to $< 30\%$ LED and/or OLED $\leq 80\%$ to $> 70\%$ fluorescent.
- One point is earned when residential unit or hotel rooms are $\geq 10\%$ to $< 20\%$ LED and/or OLED $\leq 90\%$ to $> 80\%$ fluorescent.
- No points are earned when residential unit or hotel rooms are $< 10\%$ LED and/or OLED $> 90\%$ fluorescent.

Complete regardless of the path chosen above.

3.2.2.2 Exterior LPDs comply with or improve upon ANSI/ASHRAE/IES Standard 90.1-2013 Section 9.4.2 for exterior lighting power density.

Additional control requirements to earn LPD credit include:

- Deactivating lighting when sufficient daylight is available; and
- Shutting off façade and landscape lighting between midnight and business opening, or other similar hours approved by the AHJ.

Maximum = 2 points or N/A

- Two points are earned where LPDs are 20% below ANSI/ASHRAE/IES Standard 90.1-2013.
- One point is earned where ANSI/ASHRAE/IES Standard 90.1-2013 is met.
- Not applicable where there are no exterior luminaries.

3.2.2.3 Garage and Parking Lot Lighting Control: Pole lighting in parking lots and garage luminaires are controlled such that at least 50% of the lighting power is automatically reduced during periods of no activity detected in the lighting zone.

Maximum = 2 points or N/A

- Two points are earned where all garage and parking lot general lights are

	<p><u>controlled to more than one lighting level.</u></p> <p>• <u>One point is earned where 50% of the garage and parking lot general lighting is controlled to more than one lighting level.</u></p> <p>• <u>Not applicable where there are no garage or parking lot general lighting fixtures.</u></p>
--	--

3.2.3 BUILDING AUTOMATION SYSTEM (BAS) & CONTROLS

3.2.3.1 There is a central Building Automation System (BAS) that encompasses all systems that affect building energy performance, lighting (may be a standalone control system), and thermal comfort.	<p>2 points</p> <ul style="list-style-type: none"> Not applicable if the project is Residential or Hospitality, and for buildings under 20,000 ft².
3.2.3.2 Temperature setback is based on occupancy used.	2 points
3.2.3.3 HVAC operation (e.g., fans, pumps) is scheduled based on occupancy, either through the BAS or local control.	2 points

3.2.4 COOLING SYSTEMS

3.2.4.1 The cooling equipment base efficiency meets or exceeds ANSI/ASHRAE/IES Standard 90.1-2010 efficiency requirements with respect to COP, EER, IEER, and SEER.	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> Five points are earned when performance exceeds ANSI/ASHRAE/IES Standard 90.1-2010 by 5% or more. Two points are earned when performance meets ANSI/ASHRAE/IES Standard 90.1-2010 Not applicable when the building does not use mechanical cooling.
<p>3.2.4.2 The cooling systems use hydronic cooling and/or heat rejection systems that employ the following:</p> <p>3.2.4.2.1 Variable speed chilled water pumping</p>	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> Two points are earned for 3.2.4.2.1.

<p>3.2.4.2.2 Multi-speed cooling tower or air-cooled condenser fans</p> <p>3.2.4.2.3 Non-compressor “free cooling” capability</p>	<ul style="list-style-type: none"> ○ Not applicable when there are no hydronic cooling and/or heat rejection systems. ● One point is earned for 3.2.4.2.2. <ul style="list-style-type: none"> ○ Not applicable when there are no hydronic cooling and/or heat rejection systems. ● Two points are earned for 3.2.4.2.3. <ul style="list-style-type: none"> ○ Not applicable when there are no hydronic cooling and/or heat rejection systems.
<p>3.2.4.3 There is zero Ozone Depleting Potential (ODP) of cooling refrigerants onsite.</p>	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> ● Five points are earned when there is zero ODP onsite. ● Three points are earned when there is a phase-out plan being implemented that includes budget(s) and technical feasibility. ● Not applicable when there are no refrigerants or cooling systems where one would be expected.

3.2.5 HEATING SYSTEMS

<p>3.2.5.1 The base heating system efficiency meets or exceeds the ANSI/ASHRAE/IES Standard 90.1-2010 efficiency requirements.</p>	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> ● Five points are earned when performance exceeds ANSI/ASHRAE/IES Standard 90.1-2010 by 5% or more. ● <u>Three points are earned when performance meets ANSI/ASHRAE/IES Standard 90.1-2010.</u> ● <u>No points are earned for not meeting ANSI/ASHRAE/IES Standard 90.1-2010 or electric resistance heating.</u> ● Not applicable If the building does not use heating.
<p>3.2.5.2 The heating systems use steam boilers that employ a steam condensate return of at least 60%.</p>	<p>Maximum = 2 points</p>

	<ul style="list-style-type: none"> Two points are earned when steam condensate return is $\geq 90\%$. One point is earned when steam condensate return is $\geq 60\%$ to $< 90\%$. Not applicable when there are no steam boilers.
3.2.5.3 The heating systems use hot water boilers that employ the following: 3.2.5.3.1 Modulating or multi-stage burners, or multiple staged boilers 3.2.5.3.2 Variable speed pumping 3.2.5.3.3 Supply water temperature reset	Maximum = 5 points <ul style="list-style-type: none"> Two points are earned for 3.2.5.3.1. <ul style="list-style-type: none"> Not applicable when there is no hot water heating. Two points are earned for 3.2.5.3.2. <ul style="list-style-type: none"> Not applicable when there is no hot water heating. One point is earned for 3.2.5.3.3. <ul style="list-style-type: none"> Not applicable when there is no hot water heating.
3.2.5.4 The furnace heating systems modulate.	2 points <ul style="list-style-type: none"> <u>Not applicable if there are no furnaces.</u>
3.2.5.5 The heating system NOx levels are 30 ppm or less.	1 point

3.2.6 HOT WATER	
3.2.6.1 The building has high-efficiency water heating equipment.	1 4 points
3.2.6.2 There are hot water saving devices such as low-flow or automated faucets.	1 point
3.2.6.3 The domestic hot water (DHW) system is monitored or controlled by a BAS or similar standalone controls.	1 point

3.2.7 SIMULTANEOUS HEATING & COOLING

Path A or B

Two paths are available for assessing simultaneous heating and cooling.

Ö **3.2.7A Path A: HVAC Compartmentalization: 8 points**

OR

Ö **3.2.7B Path B: Complies w/ ASHRAE 90.1: 5 points**

© 2021 Green Building Initiative, Inc. (www.thegbi.org). For personal use only. Additional reproduction, distribution or transmission in either print or digital form is not permitted without Green Building Initiative's prior written permission.

Points cannot be combined between paths. Select one of the paths below.

3.2.7A PATH A: HVAC COMPARTMENTALIZATION

3.2.7.1 The HVAC design incorporates a configuration/strategy that eliminates reheat and re-cool by using thermal and ventilation compartmentalization, with heating, cooling, and ventilation provided independently for each zone.

8 points

OR

3.2.7B PATH B: COMPLIES W/ ASHRAE 90.1

3.2.7.1 The HVAC design complies with Section 6.5.2 of the ANSI/ASHRAE/IES Standard 90.1-2010 (or more stringent).

5 points

3.2.8 AIR HANDLING EQUIPMENT & VENTILATION

3.2.8.1 The HVAC system uses ventilation heat recovery.

Maximum = ~~5~~15 points

- ~~Five-Fifteen~~ points are earned when the HVAC system uses ventilation heat recovery.
- ~~Three-Eight~~ points are earned when the HVAC system partially uses ventilation heat recovery.

3.2.8.2 The HVAC system uses air-side economizers.

Maximum = 2 points

- Two points are earned when the HVAC system uses air-side economizers.
- One point is earned when the HVAC system partially uses air-side economizers.
- Not applicable when there are no economizers.

3.2.8.3 The HVAC systems uses supply air temperature reset.

1 point

- Not applicable for distributed or compartmentalized HVAC systems.

3.2.8.4 Other energy-saving HVAC systems or measures are being used.	2 points

3.2.9 VERTICAL TRANSPORTATION	
3.2.9.1 Elevators and escalators use energy reduction measures.	2 points <ul style="list-style-type: none"> Not applicable if there are no regularly used elevators or escalators.

3.3 ENERGY MAINTENANCE & PROGRAM (**84-45** POINTS)

<u>3.3.1 ENERGY POLICY & MANAGEMENT</u>	
<u>3.3.1.1</u> There is a comprehensive energy maintenance program addressing energy-related systems and equipment operations applicable to the building.	<u>Maximum = 4 points</u> <ul style="list-style-type: none"> <u>Four points are earned when the maintenance program addresses building equipment and/or systems comprising $\geq 75\%$ to $\leq 100\%$ of the building energy use.</u> <u>Two points are earned when the maintenance program addresses building equipment and/or systems comprising $\geq 50\%$ to $< 75\%$ of the building energy use.</u> <u>No points are earned when the maintenance program addresses building equipment and/or systems comprising $< 50\%$ of the building energy use.</u>
<u>3.3.1.2</u> There are operating manuals covering standard control settings and operating instructions for all services equipment that affect energy consumption.	<u>2 points</u>
<u>3.3.1.3</u> Energy use is being monitored at the site level.	<u>3 points</u>
<u>3.3.1.4</u> At least 25% of annual site energy is <i>sub-metered</i> and monitored as part of a comprehensive energy <i>sub-metering</i> approach by end-use (user, tenant, and/ or building system).	<u>Maximum = 4 points</u> <ul style="list-style-type: none"> <u>Four points are earned when $\geq 75\%$ to $\leq 100\%$ of building energy use is <i>sub-metered</i>.</u>

	<ul style="list-style-type: none"> • <u>Three points are earned when $\geq 50\%$ to $< 75\%$ of building energy use is <i>sub-metered</i>.</u> • <u>Two points are earned when $\geq 25\%$ to $< 50\%$ of building energy use is <i>sub-metered</i>.</u> • <u>No points are earned when $< 25\%$ of building energy use is <i>sub-metered</i>.</u>
<u>3.3.1.5 Measures have been taken to analyze and reduce peak electrical energy demand by at least 10%.</u>	<u>2 points or N/A</u> <ul style="list-style-type: none"> • <u>Not applicable for Multi-Unit Residential Buildings (MURBs).</u>

3.3.1 ENERGY MAINTENANCE PROGRAM

3.3.1.1 There is a comprehensive energy maintenance program addressing energy-related systems and equipment operations applicable to the building.	Maximum = 10 points <ul style="list-style-type: none"> • Ten points are earned when there is a comprehensive energy maintenance program. • Five points are earned when there is a partial comprehensive energy maintenance program.
3.3.1.2 There are operating manuals covering standard control settings and operating instructions for all services equipment that affect energy consumption.	5 points

3.3.2 ENERGY AUDITS

<p>3.3.2.1 One of the following energy audits has been completed to assess energy consumption by the building and associated site:</p> <p>3.3.2.1.1 A comprehensive analysis of the building's operations and energy usage has been completed, including detailed life-cycle cost analysis (LCCA).</p> <p>OR</p>	<p>Maximum = 15<u>12</u> points</p> <ul style="list-style-type: none"> • Fifteen<u>Twelve</u> points are earned for 3.3.2.1.1. <p>OR</p> <ul style="list-style-type: none"> • Ten<u>Eight</u> points are earned for 3.3.2.1.2. <p>OR</p>
--	---

<p>3.3.2.1.2 An audit of the building's operations and energy usage has been completed.</p> <p>OR</p> <p>3.3.2.1.3 A basic, high-level assessment of the building's operations and energy usage has been completed.</p>	<ul style="list-style-type: none"> Six-Five points are earned for 3.3.2.1.3.
<p>3.3.2.2 There is a detailed, written action plan, including timeline and finance requirements, for implementing the findings of an energy assessment audit that has been developed.</p>	<p>Maximum = 5-3 points</p> <ul style="list-style-type: none"> Five-Three points are earned when there is a developed, detailed, written action plan. Four-Two points are earned when there is a partially developed, detailed, written action plan. Not applicable if the energy audit is current and there are no recommendations.

3.3.3 COMMISSIONING

<p>3.3.3.1 The building systems were commissioned during construction, or retro-commissioning or recommissioning has been conducted within the last 8 years.</p>	<p>Maximum = 15-12 points</p> <ul style="list-style-type: none"> Fifteen-Twelve points are earned when building systems were <i>commissioned</i> during construction, or retro-commissioning or recommissioning has been conducted within the last 8 years. Eight-Six points are earned when building systems were partially <i>commissioned</i> during construction, or partial retro-commissioning or recommissioning has been conducted within the last 8 years.
<p>3.3.3.2 <i>Commissioning</i> baseline readings have been used to generate an informed, preventative maintenance/monitoring schedule.</p>	<p>3 points</p>

~~3.3.4 ENERGY, MONITORING, POLICY, & MANAGEMENT~~

<p>3.3.4.1 Energy use is being monitored at the site level.</p>	<p>5 points</p>
--	----------------------------

<p>3.3.4.2 At least 25% of annual site energy is sub-metered and monitored as part of a comprehensive energy sub-metering approach by end-use (lighting, hot water, motors, steam, etc.), department, apartment unit, and other applicable data.</p> <p>3.3.4.2.1 Lighting 3.3.4.2.2 Hot Water 3.3.4.2.3 Motors 3.3.4.2.4 Steam 3.3.4.2.5 Other</p>	<p>Maximum = 7 points</p> <ul style="list-style-type: none"> Seven points are earned when $\geq 75\%$ of building energy use is sub-metered. Five points are earned when $\geq 50\%$ to $< 75\%$ of building energy use is sub-metered. Two points are earned when $\geq 25\%$ to $< 50\%$ of building energy use is sub-metered. No points are earned when $< 25\%$ of building energy use is sub-metered.
<p>3.3.4.3 Energy sub-metering and monitoring includes trending of major equipment.</p>	<p>2 points</p>
<p>3.3.4.4 There is an energy policy and monitoring plan with energy usage targets endorsed by senior management.</p>	<p>3 points</p>
<p>3.3.4.5 There is the following evidence of progress:</p> <p>3.3.4.5.1 Meeting energy targets over time 3.3.4.5.2 Implementation of energy efficiency measures 3.3.4.5.3 Documentation of energy conservation measures implemented</p>	<p>Maximum = 6 points</p> <ul style="list-style-type: none"> Two points are earned for 3.3.4.5.1. Two points are earned for 3.3.4.5.2. Two points are earned for 3.3.4.5.3.
<p>3.3.4.6 Steps have been taken to analyze and reduce peak energy demand.</p>	<p>5 points</p>
<p>3.3.4.7 There is an energy management or capital plan in place to fund energy efficiency projects.</p>	<p>2 points</p>
<p>3.3.4.8 Financial incentives and rebates have been leveraged to meet energy efficiency goals.</p>	<p>1 point</p> <ul style="list-style-type: none"> Not applicable if there are no available appropriate programs.

3.4 SUSTAINABLE ENERGY (~~32-30~~ POINTS)

3.4.1 Renewable Energy

Two paths are provided for assessing renewable energy.

- 3.4.1A Path A: Renewable Onsite Energy: Up to 30 points

OR

• **3.4.1B Path B: Renewable Onsite and Offsite Energy: Up to 30 points**

Points cannot be combined between paths. Select one of the paths below.

3.4.1A PATH A: RENEWABLE ONSITE ENERGY

3.4.1A.1 1% or more of the building's total energy is provided by renewable onsite energy sources, either on a direct or net-metered basis.

Maximum = 30 points

- Thirty points are earned when $\geq 50\%$ is provided.
- Twenty-eight points are earned when $\geq 45\%$ to $< 50\%$ is provided.
- Twenty-six points are earned when $\geq 40\%$ to $< 45\%$ is provided.
- Twenty-four points are earned when $\geq 35\%$ to $< 40\%$ is provided.
- Twenty-two points are earned when $\geq 30\%$ to $< 35\%$ is provided.
- Twenty points are earned when $\geq 25\%$ to $< 30\%$ is provided.
- Eighteen points are earned when $\geq 20\%$ to $< 25\%$ is provided.
- Sixteen points are earned when $\geq 15\%$ to $< 20\%$ is provided.
- Fourteen points are earned when $\geq 10\%$ to $< 15\%$ is provided.
- Twelve points are earned when $\geq 5\%$ to $< 10\%$ is provided.
- Ten points are earned when $\geq 1\%$ to $< 5\%$ is provided.
- No points are earned when $< 1\%$ is provided.

3.4.1B PATH B: RENEWABLE ONSITE AND OFFSITE ENERGY

3.4.1B.1 25% or more of remotely produced *renewable energy* is continually purchased.

Maximum = 10 points

- Ten points are earned when 100% is purchased.
- Six points are earned when $\geq 75\%$ to $< 100\%$ is purchased.

	<ul style="list-style-type: none"> • Four points are earned when $\geq 50\%$ to $< 75\%$ is purchased. • Two points are earned when $\geq 25\%$ to $< 50\%$ is purchased. • No points are earned when $< 25\%$ is purchased.
3.4.1B.2 Renewable onsite, or renewable directly delivered from offsite, energy sources are being used.	8 points
3.4.1B.3 1% or more of the building's total energy is provided by renewable onsite, or renewable directly delivered from offsite, energy sources, <u>either on a direct or net-metered basis</u> .	<p>Maximum – 14<u>12</u> points</p> <ul style="list-style-type: none"> • Fourteen<u>Twelve</u> points are earned when $\geq 25\%$ is provided. • Twelve<u>Ten</u> points are earned when $\geq 20\%$ to $< 25\%$ is provided. • Ten<u>Eight</u> points are earned when $\geq 15\%$ to $< 20\%$ is provided. • Eight<u>Six</u> points are earned when $\geq 10\%$ to $< 15\%$ is provided. • Six<u>Four</u> points are earned when $\geq 5\%$ to $< 10\%$ is provided. • Three<u>Two</u> points are earned when $\geq 1\%$ to $< 5\%$ is provided. • No points are earned when $< 1\%$ is provided.

4. WATER (185 POINTS)

4.1 WATER PERFORMANCE (65 POINTS)

4.1.1 **TOTAL** WATER CONSUMPTION

Path A, B, or C

Three paths are available for assessing total water performance.

○ 4.1.1A Path A: ~~Peer Benchmarking~~Alternative Building Water Performance Metric: 65 points

OR

○ 4.1.1B Path B: EPA Water Score for Multifamily Housing: 65 points

OR

○ 4.1.1C Path C: Improvement from Baseline Prescriptive Water Performance: 50 points

Points cannot be combined between paths. Select one of the paths below.

4.1.1A PATH A: ~~PEER BENCHMARKING~~ALTERNATIVE BUILDING WATER PERFORMANCE METRIC

~~4.1.1A.1 The building's current standing as compared to average water performance for the building type is at least 65%.~~

The building's water performance per square foot is at least 10% reduced compared to the median of the performance for the building type.

Maximum = 65 points

- Sixty-five points are earned for a building with consumption $\geq 40\%$ lower than the median.
- Sixty points are earned for a building with consumption $\geq 35\%$ to $< 40\%$ lower than the median.
- Fifty-five points are earned for a building with consumption $\geq 30\%$ to $< 35\%$ lower than the median.
- Fifty points are earned for a building with consumption $\geq 25\%$ to $< 30\%$ lower than the median.
- Forty points are earned for a building with consumption $\geq 20\%$ to $< 25\%$ lower than the median.
- Twenty-five points are earned for a building with consumption $\geq 15\%$ to $< 20\%$ lower than the median.
- Ten points are earned for a building with consumption $\geq 10\%$ to $< 15\%$ lower than the median.
- No points are earned for a building with consumption $< 10\%$ lower than the median.

- ~~65 points are earned for a standing of $\geq 90\%$.~~
- ~~60 points are earned for a standing $\geq 85\%$ to $< 90\%$.~~
- ~~55 points are earned for a standing $\geq 80\%$ to $< 85\%$.~~
- ~~50 points are earned for a standing $\geq 75\%$ to $< 80\%$.~~
- ~~40 points are earned for a standing $\geq 70\%$ to $< 75\%$.~~
- ~~25 points are earned for a standing $\geq 65\%$ to $< 70\%$.~~
- 10 points are earned for a standing $\geq 60\%$ to $< 65\%$.

OR

4.1.1B PATH B: EPA WATER SCORE FOR MULTIFAMILY HOUSING

4.1.1B.1 The EPA Water Score® of the facility is at least 60.

Maximum = 65 points

- ~~65-Sixty-five~~ points are earned for a Water Score® of 90 or higher.
- ~~60-Sixty~~ points are earned for a Water Score® of 85 to 89.
- ~~55-Fifty-five~~ points are earned for a Water Score® of 80 to 84.
- ~~50-Fifty~~ points are earned for a Water Score® of 75 to 79.
- ~~40-Forty~~ points are earned for a Water Score® of 70 to 74.
- ~~25-Twenty-five~~ points are earned for a Water Score® of 65 to 69.
- ~~10-Ten~~ points are earned for a Water Score® of 60 to 64.
- No points are earned for a Water Score® of less than 60.

OR

4.1.1C PATH C: IMPROVEMENT FROM BASELINE ~~PREScriptive WATER PERFORMANCE~~

4.1.1C.1 The building's water reduction over 5-year benchmarking baseline is at least 26%.

Maximum = 50 points

- Beginning at 26% improvement, two points are earned for every 1% improvement up to 50% improvement over the baseline for a maximum of fifty points.
- No points are earned for an improvement of <26%.

4.2 PRESCRIPTIVE WATER MEASURES (120 POINTS)

4.2.1 INDOOR WATER CONSERVING FIXTURES CONSUMPTION

Path A, B C, D, E, F, G, or H

Eight paths are available for assessing indoor water conserving fixtures consumption.

- ☐ **4.2.1A Path A: WaterSense® Labeled: 40 points**
OR
☐ **4.2.1B Path B: Multifamily: 36 points**
OR
☐ **4.2.1C Path C: Office: 36 points**
OR
☐ **4.2.1D Path D: Healthcare: 36 points or N/A**
OR
☐ **4.2.1E Path E: Hotel/Hospitality: 36 points or N/A**
OR
☐ **4.2.1F Path F: Resort/Casino: 36 points or N/A**
OR
☐ **4.2.1G Path G: Restaurant: 36 points**
OR
☐ **4.2.1H Path H: Other Building Types: 36 points or N/A**

Points cannot be combined between paths. Select one of the paths below.

4.2.1A PATH A: WATERSENSE® LABELED

4.2.1A.1 All water fixtures are WaterSense® and/or ENERGY STAR labeled where a specification exists.

40 points

OR

4.2.1B PATH B: MULTIFAMILY

4.2.1B.1 There are the following water-conserving fixtures:

Maximum = 36 points

- Twelve points are earned for 4.2.1B.1a.

4.2.1B.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories
4.2.1B.1b WaterSense® labeled showerheads
4.2.1B.1c Non-water urinals or WaterSense® labeled urinals, WaterSense® labeled tank-type toilets, or WaterSense® labeled Flushometer-Valve water closets

- Twelve points are earned for 4.2.1B.1b.
- Twelve points are earned for 4.2.1B.1c.

OR

4.2.1C PATH C: OFFICE

4.2.1C.1 There are the following water-conserving fixtures:

Maximum = 36 points

4.2.1C.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories
4.2.1C.1b Non-water urinals or WaterSense® labeled urinals
4.2.1C.1c WaterSense® labeled tank-type toilets, or WaterSense® labeled Flushometer-Valve water closets

- Twelve points are earned for 4.2.1C.1a.
- Twelve points are earned for 4.2.1C.1b.
- Twelve points are earned for 4.2.1C.1c.

OR

4.2.1D PATH D: HEALTHCARE

4.2.1D.1 There are the following water-conserving fixtures:

Maximum = 36 points

4.2.1D.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories
4.2.1D.1b WaterSense® labeled showerheads
4.2.1D.1c WaterSense® labeled tank-type toilets, or WaterSense® labeled Flushometer-Valve water closets
4.2.1D.1d Non-water urinals or WaterSense® labeled urinals
4.2.1D.1e No residential dishwashers or provisions are installed. Where commercial equipment is installed, they are ENERGY STAR dishwashers

- Twelve points are earned for 4.2.1D.1a.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1D.1b.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1D.1c.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1D.1d.
 - Not applicable where low-flow water fixtures would pose a possible health

	<p>hazard due to the building type, user, and/or space use.</p> <ul style="list-style-type: none"> • Six points are earned for projects that have no residential dishwashers or provisions or for commercial ENERGY STAR dishwashers. • Two points are earned for ENERGY STAR residential dishwashers. <ul style="list-style-type: none"> ○ Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
--	--

OR

4.2.1E PATH E: HOTEL/HOSPITALITY	
<p>4.2.1E.1 There are the following water-conserving fixtures:</p> <p>4.2.1E.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories</p> <p>4.2.1E.1b WaterSense® labeled showerheads</p> <p>4.2.1E.1c Non-water urinals or WaterSense® labeled urinals, WaterSense® labeled tank-type toilets, or WaterSense® <u>labeled</u> Flushometer-Valve water closets</p> <p>4.2.1E.1d No residential dishwashers or provisions are installed. Where commercial equipment is installed, they are ENERGY STAR dishwashers</p>	<p>Maximum = 36 points</p> <ul style="list-style-type: none"> • Six points are earned for 4.2.1E.1a. <ul style="list-style-type: none"> ○ Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use. • Twelve points are earned for 4.2.1E.1b. <ul style="list-style-type: none"> ○ Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use. • Twelve points are earned for 4.2.1E.1c. <ul style="list-style-type: none"> ○ Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use. • Six points are earned for projects that have no residential dishwashers or provisions or for commercial ENERGY STAR dishwashers. • Two points are earned for ENERGY STAR residential dishwashers. <ul style="list-style-type: none"> ○ Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.

OR

4.2.1F PATH F: RESORT/CASINO

4.2.1F.1 There are the following water-conserving fixtures:

4.2.1F.1a WaterSense® labeled residential lavatory faucets and lavatory faucet accessories

4.2.1F.1b WaterSense® labeled non-residential lavatory faucets and lavatory faucet accessories

4.2.1F.1c WaterSense® labeled showerheads

4.2.1F.1d WaterSense® labeled tank-type toilets, or WaterSense® labeled Flushometer-Valve water closets

4.2.1F.1e Non-water urinals or WaterSense® labeled urinals

4.2.1F.1f No residential dishwashers or provisions are installed. Where commercial equipment is installed, they are ENERGY STAR dishwashers

Maximum = 36 points

- Six points are earned for 4.2.1F.1a.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1F.1b.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1F.1c.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1F.1d.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for 4.2.1F.1e.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.
- Six points are earned for projects that have no residential dishwashers or provisions or for commercial ENERGY STAR dishwashers.
- Two points are earned for ENERGY STAR residential dishwashers.
 - Not applicable where low-flow water fixtures would pose a possible health hazard due to the building type, user, and/or space use.

OR

4.2.1G PATH G: RESTAURANT

4.2.1G.1 There are the following water-conserving fixtures:

4.2.1G.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories

4.2.1G.1b WaterSense® labeled tank-type toilets, or WaterSense® **labeled** Flushometer-Valve water closets

4.2.1G.1c Non-water urinals or WaterSense® labeled urinals

4.2.1G.1d No residential dishwashers or provisions are installed. Where commercial equipment is installed, they are ENERGY STAR dishwashers

Maximum = 36 points

- Eight points are earned for 4.2.1G.1a.
- Eight points are earned for 4.2.1G.1b.
- Eight points are earned for 4.2.1G.1c.
- Twelve points are earned for projects that have no residential dishwashers or provisions or for commercial ENERGY STAR dishwashers.
- Two points are earned for ENERGY STAR residential dishwashers.

OR

4.2.1H PATH H: OTHER BUILDING TYPES

4.2.1H.1 There are the following water-conserving fixtures:

4.2.1H.1a WaterSense® labeled lavatory faucets and lavatory faucet accessories

4.2.1H.1b WaterSense® labeled tank-type toilets, or WaterSense® **labeled** Flushometer-Valve water closets

4.2.1H.1c Non-water urinals or WaterSense® labeled urinals

4.2.1H.1d No residential dishwashers or provisions are installed. Where commercial equipment is installed, they are ENERGY STAR dishwashers

4.2.1H.1e Other water-saving features

Path H is a customized approach for building types that do not fit into the other Pathway options for 4.2.1 Water Conserving Features, including building types that process water (e.g., manufacturing).

Not applicable options have been provided for all fixtures, pending the building type and space use(s).

Maximum = 36 points

- Eight points are earned for 4.2.1H.1a.
 - Not applicable for fixtures, pending the building type and space use(s).
- Eight points are earned for 4.2.1H.1b.
 - Not applicable for fixtures, pending the building type and space use(s).
- Eight points are earned for 4.2.1H.1c.
 - Not applicable for fixtures, pending the building type and space use(s).
- Six points are earned for projects that have no residential dishwashers or provisions or for commercial ENERGY STAR dishwashers.
- Two points are earned for ENERGY STAR residential dishwashers.
 - Not applicable for fixtures, pending the building type and space use(s).
- Six points are earned for 4.2.1H.1e.
 - Not applicable for fixtures, pending the building type and space use(s).

4.2.2 OUTDOOR WATER CONSUMPTION

Path A or B

Two paths are available for assessing outdoor water consumption.

- **4.2.2A Path A: No Irrigation: 30 points**

OR

- **4.2.2B Path B: Outdoor Water Conserving Features:** up to 20 points

Points cannot be combined between paths. Select one of the paths below.

4.2.2A PATH A: NO IRRIGATION	
4.2.2A.1 Irrigation is not used for landscaping. Permanent irrigation systems, such as inground water distribution, is not used for landscaping	30 points <ul style="list-style-type: none"> • Not applicable for sites with no landscaping (containerized planting is not considered landscaping).

OR

4.2.2B PATH B: OUTDOOR WATER CONSERVING FEATURES	
4.2.2B.1 The following items are incorporated into landscape irrigation: 4.2.2B.1a <i>Rainwater</i> is used for irrigation. 4.2.2B.1b <i>Graywater</i> or Municipal Reclaimed Water (purple pipe) is used for irrigation. 4.2.2B.1c Landscaping minimizes the need for using <i>potable water</i> for irrigation by planting specific species that require little watering. 4.2.2B.1d Hydro zoning is used to water different plant materials such as turf grass vs. shrubs. 4.2.2B.1e The irrigation system is controlled by a WaterSense® labeled irrigation controller.	Maximum = 20 points <ul style="list-style-type: none"> • Four points are earned for 4.2.2B.1a. <ul style="list-style-type: none"> ○ Not applicable if the building covers >80% of the site area, i.e., there is no land available for landscaping. • Five points are earned for 4.2.2B.1b. <ul style="list-style-type: none"> ○ Not applicable if the building covers >80% of the site area, i.e., there is no land available for landscaping. • Five points are earned for 4.2.2B.1c. <ul style="list-style-type: none"> ○ Not applicable if the building covers >80% of the site area, i.e., there is no land available for landscaping. • Three points are earned for 4.2.2B.1d. <ul style="list-style-type: none"> ○ Not applicable if the building covers >80% of the site area, i.e., there is no land available for landscaping. • Three points are earned for 4.2.2B.1e. <ul style="list-style-type: none"> ○ Not applicable if the building covers >80% of the site area, i.e., there is no land available for landscaping.

4.2.3 WATER QUALITY & MANAGEMENT	
4.2.3.1 There is a written water usage policy intended to minimize water use and encourage water conservation	10 points

which includes water-reduction targets and is endorsed by senior management.	
4.2.3.2 Water use is metered and monitored at the facility.	<p>Maximum = 4 points</p> <ul style="list-style-type: none"> • Four points are earned when indoor and outdoor water use are both separately metered. • Four points are earned when indoor water use is metered, and there is no outdoor water use. • Two points are earned when whole building water use is metered, including both indoor and outdoor uses. • One point is earned when only a portion of the water use is metered.
4.2.3.3 At least 25% of the annual water consumption (potable and non-potable) is <i>sub-metered</i> .	<p>Maximum = 8 points</p> <ul style="list-style-type: none"> • Eight points are earned for ≥75%. • Four points are earned for ≥50% to <75%. • Two points are earned for ≥25% to <50%. • No points are earned for <25%.
4.2.3.4 A water audit has been done within the last three years.	10 points
<p>4.2.3.5 The building water systems conforms with ASHRAE 188-2018, <i>Legionellosis: Risk Management for Building Water Systems</i> <u>or equivalent or more stringent risk management building water system standards, as applicable, per the following:</u></p> <p>4.2.3.5.1 There is a program team tasked with managing Legionella in the building, and the team has described and diagrammed building water systems.</p> <p>4.2.3.5.2 Building water systems are analyzed for hazardous conditions and consider the vulnerability of building occupants.</p> <p>4.2.3.5.3 Control measures are being implemented and monitored for corrective action.</p> <p>4.2.3.5.4 The program team verifies and validates the legionellosis management program on an ongoing basis.</p>	<p>Maximum = 8 points <u>or N/A</u></p> <ul style="list-style-type: none"> • One point is earned for 4.2.3.5.1. • One point is earned for 4.2.3.5.2. • Four points are earned for 4.2.3.5.3. • One point is earned for 4.2.3.5.4. • One point is earned for 4.2.3.5.5. <u>• Not applicable if there is no definitive risk of legionellosis.</u>

~~4.2.3.5.5 The legionellosis management program is documented, and activities are communicated by the program team.~~

4.2.4 LEAK & ABNORMAL WATER USE DETECTION

Leak detection devices shall comply with IAPMO Z1349 and not interfere with fire protection systems.

Water Leak Detection Device: A plumbing appurtenance that monitors a water supply and distribution system in order to detect and report unusual conditions that may cause water waste.

Adaptive Plumbing System Monitoring and Control Device: A type of *water leak detection device* that utilizes sensor inputs to continuously monitor the hydraulic conditions and intelligently adapts to remotely report expected normal vs abnormal plumbing system states.

4.2.4.1 <i>Water leak detection devices</i> are installed for all water-intensive applications such as commercial kitchens, commercial laundries, laboratories, pools, spas, etc.	Maximum = 1 point or N/A <ul style="list-style-type: none"> ○ One point is earned for <i>adaptive plumbing system leak detection devices</i>. ○ Not applicable where there are no water intensive applications.
4.2.4.2 <i>Water leak detection devices</i> are installed for water that is used for pressurized irrigation.	Maximum = 2 points or N/A <ul style="list-style-type: none"> ○ Two points are earned for <i>adaptive plumbing system leak detection devices</i>. ○ Not applicable where there is no irrigation.
4.2.4.3 All <i>water leak detection devices</i> are linked to internet or a central Data Management System to store, monitor and report data.	1 point
4.2.4.4 Chilled or hot water loops or cooling tower makeup water supply pipes are equipped with <i>water leak detection devices</i> .	Maximum = 1 point or N/A <ul style="list-style-type: none"> ○ One point is earned for <i>adaptive plumbing system leak detection devices</i>. ○ Not applicable where there are no chilled or hot water loops.
4.2.4.5 Tenant <i>water leak detection devices</i> are used in multi-unit developments. Percentages are based on units with water supply.	Maximum = 5 points or N/A <ul style="list-style-type: none"> ○ Five points are earned when $\geq 90\%$ of the units in the development include <i>adaptive plumbing system water leak detection</i>. ○ Four points are earned when $\geq 80\%$ to $< 90\%$ of the units in the development

include *adaptive plumbing system water leak detection*.

- ö Two points are earned when $\geq 40\%$ to $< 80\%$ of the units in the development include *adaptive plumbing system water leak*.
- ö One point is earned when $\geq 20\%$ to $< 40\%$ of the units in the development include *adaptive plumbing system water leak detection*.
- ö Not applicable where there is no multi-unit development.

5. MATERIALS (~~100-93~~ POINTS)

5.1 RENOVATIONS & PROCUREMENT (~~45-36~~ POINTS)

5.1.1 CYCLE RENOVATIONS

Path A or B

Two paths are available for assessing a *cycle renovations*.

- **5.1.1.1A Path A: All Building Types, Except Healthcare Settings:** ~~5-7~~ points
- OR
- **5.1.1.1B Path B: Healthcare Settings:** ~~5-7~~ points

Points cannot be combined between paths. Select one of the paths below.

5.1.1.1A PATH A: ALL BUILDING TYPES, EXCEPT HEALTHCARE SETTINGS

5.1.1.1A.1 Procedures and assessment processes are followed for completing <i>cycle renovations</i> .	5-7 points
---	-----------------------

OR

5.1.1.1B PATH B: HEALTHCARE SETTINGS

5.1.1.1B.1 Procedures and assessment processes are followed for completing <i>cycle renovations</i> that include designing for flexibility.	5-7 points
---	-----------------------

Complete regardless of the path chosen above.

5.1.1.2 Policy that includes Product-product selection standards for *cycle renovations* ~~have has~~ been developed that ~~require include~~ the following:

5.1.1.2.1 Products selection criteria that include:

- Third-party verified multiple attribute standard certifications
- Industry Average or Wide Environmental Product Declarations (EPDs)
- Product Specific Environmental Product Declarations (EPDs)
- ~~Being listed on NIST's (National Institute of Standards and Technology) BEES (Building for Environmental and Economic Sustainability) database~~

5.1.1.2.2 Product selection criteria that include sustainable comparison and/or improvements- as follows utilizing:

- If policy standardized product selection is compliant to 5.1.1.2.1 third-party verified multiple attribute standard certifications, the policy includes requirements for a Higher-higher level of certification based

Maximum = ~~5-7~~ points

Points can be combined between criteria that are included within the policy for product selection standards each listed option, but maximum points awarded will not exceed ~~5-7~~ points total for 5.1.1.2.

- ~~Four-Three~~ points are earned for 5.1.1.2.1.
- ~~Four-Three~~ points are earned for 5.1.1.2.2.
- One point is earned for 5.1.1.2.3.

upon ~~third-third~~ party verified multiple attribute standard certifications for the same product type.

- ~~If policy standardized product selection is compliant to 5.1.1.2.1 Industry Wide EPD and Product Specific EPD for the same product, the policy includes requirements for comparing products that demonstrate any impact reduction using the same PCR, functional unit, and LCA method. Product that is included in an Industry Average EPD and have subsequently produced a Product Specific EPD for the same product.~~
- If policy standardized product selection is compliant to 5.1.1.2.1 Product Specific EPD, the policy in requirements for Products-products that includes a baseline Product Specific EPD, and over time produces an updated Product Specific EPD that demonstrates continual improvement from the baseline of a specific product. LCA method (TRACI, CML, etc.), and Product Category Rules (PCR), and functional unit are required to be the same for comparability.
- ~~Comparison of similar building products utilizing NIST's BEES database, online analysis tool utilizing the same impact indicators for comparison.~~

5.1.1.2.3 Products that include third-party sustainable forestry certification, categorized as Responsible or Certified Sources in accordance with ASTM D7612.

5.1.1.2.4 Products that include:

- Pre-consumer ~~and~~ Recycled content
- *Post-consumer Recycled content*
- *Biobased content* (other than sustainable wood)

5.1.1.2.5 Products that include *reused*, *refurbished* and/or *salvaged materials* from off-site in place of new materials (including furnishings).

5.1.1.3 Select at least one formulated product that has a completed Occupant Exposure Screening Report (OESR) prepared in accordance with ASTM E3182-20 - *Standard Practice for Preparing an Occupant Exposure Screening Report (OESR) for Substances in Installed Building Products* or other third-party verified transparency documentation that addresses any chemical constituents that are carcinogenic, mutagenic, or reprotoxic (CMR) to reproduction or human development and related exposure risk.

Points are earned for discrete products with different functional uses that have an OESR, SDS, HPD, or equivalent labeling/certification that includes transparency and ingredient listing for specified products and not variations of the same product unless the manufacturers show substantial difference between the chemical constituents or components.

- ~~Two-Three~~ points are earned for 5.1.1.2.4.
- ~~Four-One~~ points ~~are is~~ earned for 5.1.1.2.5.

Maximum = ~~10-4~~ points

Points are earned where products undergo a screening-level product *risk assessment*:

- ~~Ten points are earned for 10 products.~~
- ~~Nine points are earned for 9 products.~~
- ~~Eight points are earned for 8 products.~~

	<ul style="list-style-type: none"> ○ Seven points are earned for 7 products. ○ Six points are earned for 6 products. ○ Five points are earned for 5 products. ○ Four points are earned for 4 <u>or more</u> products. ○ Three points are earned for 3 products. ○ Two points are earned for 2 products. ○ One point is earned for 1 product.
5.1.1.4 An annual assessment and inventory of available existing furniture (including systems furniture) for re-use or refurbishment has been completed as part of the <i>cycle renovation</i> process.	<p>2 points</p> <ul style="list-style-type: none"> • <u>Not applicable when there is no available existing furniture.</u>
5.1.1.5 There is a construction, <i>renovation</i> and demolition waste management policy, procedure, and plan for <i>cycle renovation(s)</i> .	5 3 points

5.1.2 ENVIRONMENTAL PURCHASING	
5.1.2.1 Building management has a written environmental <u>impact</u> purchasing policy <u>that identifies sustainable and wellness purchasing goals.</u>	5 3 points #
5.1.2.2 There is a list of environmentally preferred products used in housekeeping and building maintenance based upon the building type application.	5 points
5.1.2.3 The purchasing policy includes the requirement for purchasing energy and water saving equipment <u>ENERGY STAR® labeled, FEMP-designated, and WaterSense® labeled products where available.</u>	5 points
5.1.2.4 Safety Data Sheets (SDSs) are reviewed by staff who purchase hazardous products.	3 points

5.2 RECYCLING & WASTE (~~55~~57 POINTS)

5.2.1 FACILITIES FOR STORAGE & HANDLING OF RECYCLABLE MATERIALS

5.2.1.1 There are storage/handling facilities for collection and pickup of the following items:

5.2.1.1.1 Paper products

5.2.1.1.2 Cardboard products

5.2.1.1.3 Glass products

5.2.1.1.4 Metal products

5.2.1.1.5 Plastic products

5.2.1.1.6 Composting

Maximum = 12 points

- Two points are earned for 5.2.1.1.1.
 - Not applicable if there are no paper products.
- Two points are earned for 5.2.1.1.2.
 - Not applicable if there are no cardboard products.
- Two points are earned for 5.2.1.1.3.
 - Not applicable if there are no glass products.
- Two points are earned for 5.2.1.1.4.
 - Not applicable if there are no metal products.
- Two points are earned for 5.2.1.1.5.
 - Not applicable if there are no plastic products.
- Two points are earned for 5.2.1.1.6.
 - Not applicable if there is no compost.

5.2.1.2 There are point of service collection points throughout the building or campus near the areas where waste is generated for the following items:

5.2.1.2.1 Paper and cardboard products

5.2.1.2.2 Glass products

5.2.1.2.3 Metal products

5.2.1.2.4 Plastic products

5.2.1.2.5 Composting

Maximum = 10 points

- Two points are earned for 5.2.1.2.1.
 - Not applicable if there are no paper or cardboard products.
- Two points are earned for 5.2.1.2.2.
 - Not applicable if there are no glass products.
- Two points are earned for 5.2.1.2.3.
 - Not applicable if there are no metal products.
- Two points are earned for 5.2.1.2.4.
 - Not applicable if there are no plastic products.
- Two points are earned for 5.2.1.2.5.
 - Not applicable if there is no compost (including food waste).

5.2.1.3 For fluorescent and high-intensity discharge lamps and ballasts the following are available:

Maximum = 4 points

- Two points are earned for 5.2.1.3.1.

<p>5.2.1.3.1 A designated, secured storage area for replacement lamps and ballasts.</p> <p>5.2.1.3.2 A designated, secured recycling/disposal area.</p>	<ul style="list-style-type: none"> • <u>Two points are earned for 5.2.1.3.2.</u> • <u>Not applicable when such lamps are not used.</u>
<p>5.2.1.4 For electronics and batteries the following are available:</p> <p>5.2.1.4.1 A designated storage area for back-up and replacement electronic equipment and batteries.</p> <p>5.2.1.4.2 A completed inventory of electronic equipment and batteries stored onsite and in-use.</p> <p>5.2.1.4.3 A designated recycling/disposal area for pick-up/removal by recycling vendor.</p> <p>5.2.1.4.4 A designated charging area for equipment batteries.</p>	<p>Maximum = 4 points</p> <ul style="list-style-type: none"> • One point is earned for 5.2.1.4.1. • One point is earned for 5.2.1.4.2. • One point is earned for 5.2.1.4.3. • One point is earned for 5.2.1.4.4. <ul style="list-style-type: none"> ○ Not applicable if there are no applicable equipment batteries.
<p>5.2.1.5 There is a designated storage area for <i>reusable goods</i>.</p>	<p>2<u>4</u> points</p>

5.2.2 CONSUMABLES/DISPOSABLES: WASTE REDUCTION & RECYCLING	
<p>5.2.2.1 A waste audit and vendor review has been completed within the last one to three years.</p>	<p>5 points</p>
<p>5.2.2.2 Waste is regularly monitored <u>and documented</u>.</p>	<p>4 points</p>
<p>5.2.2.3 The building has a policy for diverting consumables/disposables that includes waste reduction targets.</p>	<p>6 points</p>
<p>5.2.2.4 The current diversion rate of consumables/disposables is at least 25%.</p>	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> • Five points are earned when the current diversion rate of consumables/disposables ≥85% to ≤100%. • Four points are earned when the current diversion rate of consumables/disposables ≥75% to <85%. • Three points are earned when the current diversion rate of consumables/disposables ≥50% to <75%.

	<ul style="list-style-type: none"> • Two points are earned when the current diversion rate of consumables/ disposables $\geq 25\%$ to $< 50\%$. • No points are earned when the current diversion rate of consumables/ disposables is $< 25\%$.
5.2.2.5 The current diversion rate of compostables is at least 25%.	<p>Maximum = 3 points</p> <ul style="list-style-type: none"> • Three points are earned when the current diversion rate of compostables $\geq 75\%$ to $\leq 100\%$. • Two points are earned when the current diversion rate of compostables $\geq 50\%$ to $< 75\%$. • One point is earned when the current diversion rate of compostables $\geq 25\%$ to $< 50\%$. • No points are earned when the current diversion rate of compostables is $< 25\%$.

6. INDOOR ENVIRONMENTAL QUALITY (~~203~~ 205 POINTS)

6.1 INDOOR AIR QUALITY (IAQ) SYSTEMS & MEASURES (89 POINTS)

6.1.1 VENTILATION SYSTEM	
6.1.1.1 Outdoor air intakes are checked regularly to ensure that the openings are protected and free from obstruction.	2 points
6.1.1.2 Condensate drip trays are drained and/or inspected to ensure there is no free-standing water that cannot drain away.	3 points <ul style="list-style-type: none"> Not applicable when there are no air conditioning systems.
6.1.1.3 Air-handling units (AHUs) are free of any signs of corrosion, loose material (such as damaged filters), or sound attenuation material.	2 points <ul style="list-style-type: none"> Not applicable when there are no AHUs.
6.1.1.4 There is a steady-state CO ₂ concentration no greater than 700ppm above outdoor levels.	Maximum = 4 points <ul style="list-style-type: none"> Four points are earned when CO₂ concentration is not greater than 700ppm above outdoor levels. <u>Four points are earned when ventilation is modulated based on ASHRAE 62.1.</u> <u>Not applicable for residential spaces.</u>
6.1.1.5 In densely <i>occupied rooms</i> (25 or more people per 1,000 ft ² (92.9 m ²)) with <i>variable occupancy</i> (e.g., meeting rooms, assembly areas) there are CO ₂ sensing and ventilation control equipment.	3 points <ul style="list-style-type: none"> Not applicable when there are no densely <i>occupied rooms</i>.
6.1.1.6 Occupants have personal control over the ventilation rates in the area in which they work, either through hybrid system (operable windows) or personalized HVAC controls.	2 points <ul style="list-style-type: none"> Not applicable for unoccupied buildings and buildings with no regular working occupants.

6.1.2 AIR FILTRATION SYSTEM & TREATMENT

Path A, B, or C

Three paths are available for assessing air filtration and treatments systems.

○ **6.1.2A Path A: Offices, Higher Education, General Commercial Facilities:** Up to ~~10~~16 points

OR

○ **6.1.2B Path B: Multifamily:** Up to ~~10~~16 points

OR

○ **6.1.2C Path C: Healthcare:** Up to ~~10~~16 points

Points cannot be combined between paths. Select one of the paths below.

6.1.2A PATH A: OFFICES, HIGHER EDUCATION, GENERAL COMMERCIAL FACILITIES

6.1.2A.1 The air filtration and treatment are as follows:

6.1.2A.1.1 The type of filtration in place at the facility is Minimum Efficiency Reporting Values (MERV) 13 on make-up air (MUA) and ~~distributed~~ dedicated outdoor air system (DOAS) units and MERV 8 for zone units (applicable to fan coils and fan powered boxes).

6.1.2A.1.2 Upper-air (upper room) ultraviolet germicidal (UVGI) luminaires used in densely occupied spaces (25 or more people per 1,000 ft²), or HEPA filters are installed in spaces or in all AHUs and packaged units.

Maximum = ~~10~~16 points

- Ten points are earned for 6.1.2A.1.1 for MERV 13 on MUA and DOAS units and MERV 8 for zone units.
- Ten points are earned for 6.1.2A.1.1 for MERV 13 in central AHUs.
- Five points are earned for 6.1.2A.1.1 for MERV 8 on MUA, DOAS, and zone units.
- Six points are earned for 6.1.2A.1.2.
- Not applicable if there are no AHUs or packaged units.

OR

6.1.2B PATH B: MULTIFAMILY

6.1.2B.1 The type of filtration in place at the facility is MERV 13 on MUA, DOA, and zone units.

Maximum = ~~10~~16 points

- ~~Ten~~Sixteen points are earned for MERV 13 on MUA, DOAS, and zone units.
- Five points are earned for MERV 8 on MUA, DOAS, and zone units.
- Not applicable if there are no AHUs or packaged units.

OR

6.1.2C PATH C: HEALTHCARE

6.1.2C.1 The filtration in place at the facility is meeting all Facility Guidelines Institute (FGI) Guidelines.

~~Maximum = 10~~16 points

Complete regardless of the path chosen above.

<p>6.1.2.2 Ultraviolet light is used for germicidal irradiation or other technologies use ionization of particles to address potential infectious particles.</p>	<p>Maximum = 4 points</p> <ul style="list-style-type: none"> Four points are earned when HEPA filters are installed in spaces or in all AHUs. Four points are earned when UVGI is used in spaces or spaces are designed to inactivate airborne contaminants. Three points are earned when UVGI for coil cleaning is used. Three points are earned when other ionization approaches are used.
<p>6.1.2.3 Manometers are fitted to indicate when filters should be changed.</p>	<p>3 points</p> <ul style="list-style-type: none"> Not applicable if there are no AHUs.
<p>6.1.2.4 Filters are accessible for cleaning and inspection and includes tight-fitting filters within the filter supports.</p>	<p>3 points</p> <ul style="list-style-type: none"> Not applicable if there are no AHUs.

6.1.3 CONTROL OF POLLUTANTS AT SOURCE

<p>6.1.3.1 Enclosed parking areas are mechanically ventilated.</p>	<p>2 points</p> <ul style="list-style-type: none"> Not applicable when there are no enclosed parking areas.
<p>6.1.3.2 There are measures to prevent intake of exhaust fumes from the loading dock and parking areas.</p>	<p>2 points</p> <ul style="list-style-type: none"> Not applicable when there are no loading docks or parking areas.
<p><u>6.1.3.3 Carbon monoxide monitoring devices and alarms are installed in areas where there are sources of combustion (i.e. stoves, ovens, grills, clothes dryers, furnaces, boilers, water heaters, heaters and fireplaces).</u></p> <p>There is carbon monoxide monitoring in the following:</p> <p>6.1.3.3.1 Garages</p> <p>6.1.3.3.2 Boilers</p>	<p>Maximum = 2 points <u>or N/A</u></p> <ul style="list-style-type: none"> One point is earned for 6.1.3.3.1. <ul style="list-style-type: none"> Not applicable when there are no enclosed parking areas. One point is earned for 6.1.3.3.2. <p>Not applicable when there are no <u>areas with combustion sources</u> enclosed boilers.</p>

<p>6.1.3.4 The following are addressed and/or resolved, including observations or complaints, so that the facility is free of the following symptoms of mold or excess moisture:</p> <p>6.1.3.4.1 Damp or musty carpets</p> <p>6.1.3.4.2 Musty odors</p>	<p>Maximum = 2 points</p> <ul style="list-style-type: none"> One point is earned for 6.1.3.4.1. One point is earned for 6.1.3.4.2.
<p>6.1.3.5 4 There is separate ventilation that provides local exhaust for the following spaces:</p> <p>6.1.3.5.1 Dining venues</p> <p>6.1.3.5.2 Kitchens</p> <p>6.1.3.5.3 Chemical storage areas</p> <p>6.1.3.5.4 Areas that use or process chemicals</p> <p>6.1.3.5.5 Bathrooms</p> <p>6.1.3.5.6 Printer or copier rooms</p>	<p>Maximum = 6 points</p> <ul style="list-style-type: none"> One point is earned for 6.1.3.54.1. <ul style="list-style-type: none"> Not applicable when there are no dining venues. One point is earned for 6.1.3.54.2. <ul style="list-style-type: none"> Not applicable when there are no kitchen(s). One point is earned for 6.1.3.54.3. <ul style="list-style-type: none"> Not applicable when there are no chemical storage areas. One point is earned for 6.1.3.54.4. <ul style="list-style-type: none"> Not applicable when there are no areas that use or process chemicals. One point is earned for 6.1.3.54.5. One point is earned for 6.1.3.54.6. <ul style="list-style-type: none"> Not applicable when there are no printer or copier rooms.
<p>6.1.3.6 5 There are documented measures to control pollutants in the following areas:</p> <p>6.1.3.6.1 5 Environmental Services Rooms</p> <p>6.1.3.6.2 5 Kitchen(s)</p> <p>6.1.3.6.3 5 Chemical storage areas</p> <p>6.1.3.6.4 5 General storage areas</p> <p>6.1.3.6.5 5 Printer areas or rooms</p>	<p>Maximum = 5 points</p> <ul style="list-style-type: none"> One point is earned for 6.1.3.6.1. <ul style="list-style-type: none"> Not applicable when there are no environmental services rooms. One point is earned for 6.1.3.65.2. <ul style="list-style-type: none"> Not applicable when there are no kitchen(s). One point is earned for 6.1.3.65.3. <ul style="list-style-type: none"> Not applicable when there are no chemical storage areas. One point is earned for 6.1.3.6.4. <ul style="list-style-type: none"> Not applicable when there are no general storage areas. One point is earned for 6.1.3.65.5. <ul style="list-style-type: none"> Not applicable when there are no printer areas or rooms.

<p>6.1.3.7-6 The building complies with the following:</p> <p>6.1.3.7-6.1 Smoking is prohibited in any form within the building and within 25 feet of all building entrances, operable windows, and building ventilation intake.</p> <p>6.1.3.7-6.2 There is a building policy stating the building is smoke free.</p> <p>6.1.3.7-6.3 There are permanent signs stating that the building is smoke-free at each entrance.</p> <p>6.1.3.7-6.4 There is a smoke-free policy for outdoor spaces part of the building site.</p>	<p>Maximum = 6 points</p> <ul style="list-style-type: none"> One point is earned for 6.1.3.7-6.1. One point is earned for 6.1.3.7-6.2. Two points are earned for 6.1.3.7-6.3. Two points are earned for 6.1.3.7-6.4.
<p>6.1.3.8-7 There is an entry mat system used to reduce particulate and dirt from entering the building.</p>	<p>2 points</p>
<p>6.1.3.9-8 There is a clean steam humidification system used within the building.</p>	<p>2 points</p> <ul style="list-style-type: none"> Not applicable when there is no need for a clean steam humidification system.
<p>6.1.3.10-9 Floor drains are protected in areas where chemicals are stored.</p>	<p>2 points</p>

6.1.4 IAQ MANAGEMENT

<p>6.1.4.1 The building management has in place a documented means for addressing building occupant concerns and complaints regarding indoor air quality (such as a complaint form and incident log).</p>	<p>4 points</p>
<p>6.1.4.2 The building had an IAQ audit in the past year.</p>	<p>4 points</p>
<p>6.1.4.3 There is a policy and procedure for maintaining the air quality that includes the following components:</p> <p>6.1.4.3.1 HVAC operations</p> <p>6.1.4.3.2 Housekeeping procedures</p> <p>6.1.4.3.3 Preventive maintenance</p> <p>6.1.4.3.4 Procedures for unscheduled maintenance</p> <p>6.1.4.3.5 Operations and maintenance of UVGI or other technologies including ionization of particles to address potential infectious particles</p> <p>6.1.4.3.6 Using Utilizing low-emitting products and materials that have conforming VOC content limits and</p>	<p>Maximum = 10 points</p> <ul style="list-style-type: none"> Two points are earned for 6.1.4.3.1. Two points are earned for 6.1.4.3.2. Two points are earned for 6.1.4.3.3. Two points are earned for 6.1.4.3.4. Two points are earned for 6.1.4.3.5. Two points are earned for 6.1.4.3.6.

<p>low VOC emissions for maintenance and <i>cycle renovations</i>.</p> <p>Products shall meet testing requirements found in and be in compliance with California Department of Public Health (CDPH) Standard Method v1.2, Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers, using private office scenario.</p> <p>Adhesives and sealants shall meet CDPH/EHLB Standard Method V1.2, private office scenario and SCAQMD Rule 1168, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168.</p>	
<p>6.1.4.4 There is a policy and checklist of items connected to IAQ that require discussion with architects, engineers, contractors, and other professionals prior to <i>cycle renovations</i> and repairs.</p>	<p>4 points</p>

6.2 HAZARD MITIGATION (~~16~~18 POINTS)

6.2.1 ASBESTOS	
<p>6.2.1.1 If there is asbestos, the building has been certified that all asbestos has been remediated or encapsulated.</p>	<p>3 points</p> <ul style="list-style-type: none"> Not applicable if there is no asbestos in the building.
<p>6.2.1.2 There is a documented asbestos management plan that includes identification of asbestos-containing materials, management of asbestos within the building, and precautions to be taken during repairs and <i>cycle renovations</i>.</p>	<p>2 points</p> <ul style="list-style-type: none"> Not applicable if there is no asbestos in the building.
6.2.2 RADON	
<p>6.2.2.1 The building has had a radon survey during the last 2 years which indicates that measured radon levels are below 4 pCi/L after any mitigation measures have been activated.</p>	<p>6 points</p>

6.2.3 LEAD

6.2.3.1 If there is lead in the building, the building has been certified that all lead hazards have been abated.

3 points

- Not applicable if there is no lead in the building.

6.2.3.2 There is a documented lead management plan that includes precautions to be taken during repairs and *cycle renovations*.

2 points

- Not applicable if there is no lead in the building.

6.2.4 MOLD DETECTION & ABATEMENT

6.2.4.1 Procedures have been implemented for the identification of mold, mold source, mold remediation, and precautions to prevent mold growth during building operations, occupancy, and renovations, documented in a mold management plan.

2 points

6.3 HAZARD PREVENTION (26 POINTS)

6.3.1 CLEANING & DISINFECTION

6.3.1.1 Contracts with cleaning contractors specifically state that they are to use environmentally preferable cleaning and disinfection agents that are listed by the USEPA as either Safer Choice Certified products or Design for Environment Certified registered products. If cleaning and disinfection is provided directly by building management employees, then written policies and procedures specifically state that only the same products listed above be used.

2 points

- Not applicable for residential spaces.

6.3.1.2 There is a protocol or plan in place to effectively maintain air quality inside the building using treatment or filtration technologies or flushing the building in whole or part with outside air contingent upon acceptable ambient air quality.

2 points

- Not applicable for unoccupied buildings and buildings with no regular working occupants.

6.3.1.3 The building utilizes no-touch mechanisms and controls that minimize the need to use hand contact on

Maximum = 2 points

<p>multi-person high touch surfaces such as but not limited to the following:</p> <ul style="list-style-type: none"> ö Elevator controls ö Lighting and access control ö Restroom door hardware ö Restroom toilet controls ö Restroom faucet controls ö Building entry and exit door controls ö Interior door hardware leading to spaces regularly occupied by multiple persons ö Other 	<ul style="list-style-type: none"> • Two points are earned for four or more no-touch features. <ul style="list-style-type: none"> ö Not applicable for unoccupied buildings and buildings with no regular working occupants. • One point is earned for two or three no-touch features. <ul style="list-style-type: none"> ö Not applicable for unoccupied buildings and buildings with no regular working occupants. • No points are earned for one or less no-touch features. <ul style="list-style-type: none"> ö Not applicable for unoccupied buildings and buildings with no regular working occupants
---	--

6.3.2 INTEGRATED PEST MANAGEMENT (IPM)	
6.3.2.1 There are suitable measures to ensure that food or food waste is well contained and that there are no unprotected openings, to minimize access by rodents.	1 point
6.3.2.2 The landscaping or building exterior grounds policy include an <i>integrated pest management</i> plan.	2 points <ul style="list-style-type: none"> • Not applicable if there is no landscaping and no exterior grounds.
6.3.2.3 There is an <i>integrated pest management</i> plan for the interior of the building.	2 points
6.3.2.4 The pest control policy and/or contract requires licensed staff and utilization of an <i>integrated pest management</i> plan for the building.	1 point <ul style="list-style-type: none"> • Not applicable if there is no landscaping.

6.3.3 HEALTH, SAFETY, AND MANAGEMENT OF CHEMICALS & HAZARDOUS MATERIALS

Path A or B

Two paths are available for assessing hazardous chemicals and chemical management.

ö **6.3.3A Path A: Buildings Other Than Healthcare, Education, Laboratories, And Hospitality Facilities:**
up to 14 points

OR

ö **6.3.3B Path B: Healthcare, Education, Laboratories, And Hospitality Facilities:** up to 14 points

Points cannot be combined between paths. Select one of the paths below.

6.3.3A ~~Path-PATH~~ A: BUILDINGS OTHER THAN HEALTHCARE, EDUCATION, LABORATORIES, AND HOSPITALITY FACILITIES

6.3.3A.1 Cleaning chemicals are safely stored and secured.	5 points
6.3.3A.2 There is a policy and procedure for disposal of cleaning chemicals.	3 points
6.3.3A.3 There is a Health and Wellness committee that periodically reviews the purchasing policy in relationship to chemicals being purchased, what is used within the building, and exposure <i>risks</i> to building occupants.	2 points <ul style="list-style-type: none">• Not applicable for unoccupied buildings and buildings with no regular working occupants.
6.3.3A.4 Hazard Communication Standard (HCS) labels are present on regulated products.	2 points
6.3.3A.5 Current digital or hard copy SDSs are accessibly located near or in environmental services closets.	2 points

OR

6.3.3B PATH B: HEALTHCARE, EDUCATION, LABORATORIES, AND HOSPITALITY FACILITIES

6.3.3B.1 Cleaning chemicals and hazardous materials are safely stored, secured, and HCS labeled.	4 points
6.3.3B.2 There is a designated person responsible for the management of hazardous materials.	2 points
6.3.3B.3 There are inventory and records of the hazardous materials/waste, including their removal and disposal.	2 points
6.3.3B.4 There is a Health and Safety Committee that meets regularly and carries out regular inspections of the property.	2 points
6.3.3B.5 Current digital or hard copy SDSs, slip clean-up kits, and safety equipment such as eye-wash stations are accessibly located near chemical storage areas.	2 points

6.3.3B.6 There is a plan in place for reduction of mercury-containing products and devices and procedure for recycling, substitution, and/or disposal.	2 points
---	----------

6.4 LIGHTING (36 POINTS)

6.4.1 DAYLIGHTING & ELECTRICAL LIGHTING	
6.4.1.1 All magnetic ballasts have been replaced by electronic ballasts or with new light fixtures that include electronic ballasts or solid state technology.	2 points
6.4.1.2 <u>There are internal and/or external shading devices under occupant or automatic control to mitigate glare and/or uncomfortable lighting conditions in work and living spaces to provide for occupant comfort.</u> There are daylight controls for internal or external shading systems that reduce glare at work areas and Visual Display Terminals (VDT).	2 points <ul style="list-style-type: none"> Not applicable for unoccupied buildings and buildings with no regular working occupants.
6.4.1.3 There are indirect, or combination indirect/direct artificial lighting solutions provided to reduce glare.	1 point
6.4.1.4 Lighting levels meet the following IES requirements based upon the building type: <ul style="list-style-type: none"> Offices and related workspaces: <i>ANSI/IES RP-1-12, Table B1a: Office and Common Application Illuminance Values</i> Senior living settings: <i>ANSI/IES RP-28-16 Lighting and the Visual Environment for Seniors and the Low Vision Population including Errata 1 020118</i> Hospital and healthcare facilities: <i>ANSI/IES RP-29-16 Lighting for Hospital and Healthcare Facilities</i> Educational facilities: <i>ANSI/IES RP-3-13 American National Standard Practice on Lighting for Educational Facilities</i> Retail establishments: <i>ANSI/IES RP-2-17 Recommended Practice for Retail Lighting</i> Multifamily housing: <i>ANSI/IES/ALA RP-11-17 Lighting for Interior and Exterior Residential Environments</i> Library buildings: <i>ANSI/IES RP-4-13 Recommended Practice for Library Lighting</i> 	3 points

<ul style="list-style-type: none"> • Warehouses and industrial facilities: <i>ANSI/IES RP-7-17 Recommended Practice for Lighting Industrial Facilities</i> • Museums and art galleries: <i>ANSI/IES RP-30-17 Recommended Practice for Museum Lighting</i> • Hotels and hospitality settings: <i>IES/DG-25-17 Design Guide for Hospitality Lighting</i> 	
6.4.1.5 There is individual control of <i>task lighting</i> provided for at least 90% of occupants.	2 points
6.4.1.6 The floor plan of the building achieves a minimum daylight factor (DF) of at least 2% in all regularly occupied spaces.	3 points
6.4.1.7 60% of regularly occupied areas have <i>clear views</i> to the exterior or atria within 25 ft. (7.6 m) from a window.	2 points
6.4.1.8 Windows oriented to the south, east, and west include passive shading devices (e.g., manual window shades or permanent projections such as <i>overhangs</i>).	2 points
6.4.1.9 Windows oriented to the south, east, and west include active automated shading system (e.g., automated windows shades or electrochromic glazing) that automatically adjust based upon sky conditions and <i>daylighting</i> levels.	2 points • <u>Not applicable for residential spaces.</u>
6.4.1.10 Photo-sensors are used to maintain consistent lighting levels throughout the day using both <i>daylighting</i> and artificial lighting.	2 points • <u>Not applicable for residential spaces.</u>
6.4.1.11 Exterior pathways and parking areas are lit to provide safe access from parking areas to building entries.	3 points
6.4.1.12 All building entrances regularly used by building occupants are lit to provide safe access to the building.	2 points
6.4.1.13 In regularly occupied spaces replacement or existing lamping includes a minimum Color Rendering Index (CRI) of 80.	2 points

6.4.1.14 In regularly occupied spaces, replacement or existing lighting includes a Correlated Color Temperature (CCT) between 2700°K and 4500°K and CCT to be consistent throughout occupied spaces.	2 points
6.4.1.15 The lighting is layered within workspaces within the building.	2 points <ul style="list-style-type: none">Not applicable for unoccupied buildings and buildings with no regular working occupants.
6.4.1.16 The artificial lighting system is capable of adjusting the color rendering index (CRI) and/or a combination of both correlated color temperature (CCT) to reflect the time of day to align with circadian entrainment.	2 points
6.4.1.17 There are occupancy sensors and/or timeclocks for turning off indoor lighting for spaces not in use.	1 point
6.4.1.18 There are timeclocks and/or photosensors for exterior lighting.	1 point

6.5 THERMAL COMFORT (7 POINTS)

6.5.1 THERMAL COMFORT

Path A or B

Two paths are available for assessing thermal comfort.

○ **6.5.1A Path A: ASHRAE 55 Assessment:** 4 points

OR

○ **6.5.1B Path B: ISO Standards Based Assessment:** 4 points

Points cannot be combined between paths. Select one of the paths below.

6.5.1A PATH A: ASHRAE 55 ASSESSMENT	
6.5.1A.1 Comfort levels have been evaluated using Section 7 Evaluation of Comfort in Existing Buildings.	4 points
OR	
6.5.1B PATH B: ISO STANDARDS BASED ASSESSMENT	

6.5.1B.1 HVAC systems and the <i>building envelope</i> have been designed to meet ISO 7730: 2005 and ISO 17772-2017.	4 points
---	----------

Complete regardless of the path chosen above.

6.5.1.2 The following are being monitored continuously:	Maximum = 2 points
6.5.1.2.1 Temperature	• One point is earned for 6.5.1.2.1.
6.5.1.2.2 Humidity	• One point is earned for 6.5.1.2.2.
6.5.1.3 Occupants have access to thermal control devices.	1 point
	• Not applicable for unoccupied buildings and buildings with no regular working occupants.

6.6 ACOUSTICAL PRIVACY & COMFORT (14 POINTS)

6.6.1 ACOUSTICAL PROGRAM	
6.6.1.1 The acoustical program includes provisions dedicated for 'quiet' spaces for occupants; for reasons <u>purposes</u> which include focus work, <u>relaxation, and</u> in-person, phone and teleconference meetings, and <u>relaxation</u> .	1 point
6.6.1.2 The acoustical program establishes noise limit criteria and sound -masking <u>sound</u> levels for occupiable spaces.	1 point
6.6.1.3 The acoustical program establishes acoustical expectations for <u>acoustical and speech</u> privacy for spaces.	1 point
6.6.1.4 The acoustical program establishes requirements for reverberation time for spaces.	1 point

6.6.2 BACKGROUND NOISE LIMITS	
6.6.2.1 Background noise levels in spaces, measured and assessed in accordance with ANSI/ASA S12.72-2015(R2020) <i>Measuring The Ambient Noise Level In A</i>	Maximum = 2 points

Room, comply with noise criteria limits, as defined in the acoustical program.

- ~~2~~Two points are earned if ≥10% of spaces are assessed.
- ~~1~~One point is earned if ≥5% to <10% of spaces are assessed.

6.6.3 SOUND MASKING SYSTEMS

6.6.3.1 There is a sound masking system, and a report in accordance with *ASTM E1573-18 Standard Test Method for Measurement and Reporting of Masking Sound Levels Using A-Weighted and One-Third-Octave-Band Sound Pressure Levels*, showing its operation to be in compliance within tolerances of the specified overall masking sound level and spectrum for occupiable spaces, as defined in the acoustical program.

- 3 points
- Not applicable for residential units.

6.6.4 SOUND INSULATION

6.6.4.1 Reasonable safeguards to provide acoustical and speech privacy are assessed and reported in accordance with *ASTM E336-20 Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings*, *ASTM E1130-16 Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index* and/or *ASTM E2638-10(2017) Standard Test Method for Objective Measurement of the Speech Privacy Provided by a Closed Room*.

- 2 points
- ~~2~~Points are earned if ≥10% of enclosed room partitions are assessed.

6.6.4.2 Assessment results in 6.6.4.1 show compliance with expectations for privacy, as defined in the acoustical program.

6.6.4.2.1 If reasonable safeguards do not meet acoustical expectations for privacy established in the acoustical program, *remediation* strategies are explored and implemented.

6.6.4.2.2 *Remediation* efforts are reassessed according to the methods in 6.6.4.1.

- Maximum = 2 points
- ~~2~~Two points are earned for 6.6.4.2.
- OR
- ~~1~~One point is earned for 6.6.4.2.1.
 - ~~1~~One point is earned for 6.6.4.2.2.

6.6.5 REVERBERATION TIME

<p>6.6.5.1 There are acoustical treatments in spaces, measured and assessed in accordance with <i>Section A.4 Verification of conformance to reverberation time requirements of ANSI/ASA S12.60-2015(R2020) Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools</i>, showing compliance with reverberation time requirements, as defined in the acoustical program.</p>	<p>1 point</p> <ul style="list-style-type: none"> • <u>One point</u> is earned if ≥10% of occupiable spaces are assessed.
--	--

6.7 OCCUPANT COMFORT & WELLNESS (15 POINTS)

6.7.1 ACCESS TO POTABLE WATER	
<p>6.7.1.1 There is convenient access to potable drinking water, including water bottle refilling stations available throughout the building.</p>	<p>2 points</p> <ul style="list-style-type: none"> • <u>Not applicable for Multifamily housing.</u>
<p>6.7.1.2 The incoming potable water for the building has been tested <u>onsite</u> and if the water quality report indicates needs for improvement there is a <i>remediation</i> policy.</p>	<p>1 point</p>

6.7.2 HEALTH & WELLNESS	
<p>6.7.2.1 The workplace areas within the building include active workstations.</p>	<p>2 points</p> <ul style="list-style-type: none"> • Not applicable for unoccupied buildings and buildings with no regular working occupants.
<p>6.7.2.2 If the building is multi-story, the building includes a minimum of one centrally located, highly visible stairwell that is fully accessible by all building occupants from each floor. There are cues, signage, or other design features that encourage use of stairs over the elevator or escalator.</p>	<p>1 point</p> <ul style="list-style-type: none"> • Not applicable if the building is one story.
<p>6.7.2.3 If a building includes Food and/or Vending Services, contracts provide the following:</p> <p>6.7.2.3.1 Healthy food and beverage standards.</p> <p>6.7.2.3.2 Nutritional labeling and portion control via size and shape of food and beverage containers, prominent display of healthy food and beverage options, and/or</p>	<p>Maximum = 4 points</p> <ul style="list-style-type: none"> • One point is earned for 6.7.2.3.1. <ul style="list-style-type: none"> ○ Not applicable if food and/or vendor services are not offered. • One point is earned for 6.7.2.3.2.

<p>packaging design that supports health food and beverage labeling.</p> <p>6.7.2.3.3 Provides discounts or rebates for healthy food options.</p> <p>6.7.2.3.4 Provides access to free sources of drinking water.</p>	<ul style="list-style-type: none"> ○ Not applicable if food and/or vendor services are not offered. ● One point is earned for 6.7.2.3.3. <ul style="list-style-type: none"> ○ Not applicable if food and/or vendor services are not offered. ● One point is earned for 6.7.2.3.4. <ul style="list-style-type: none"> ○ Not applicable if food and/or vendor services are not offered.
<p>6.7.2.4 The building includes:</p> <p>6.7.2.4.1 An exercise room and/or fitness center or is access to an off-site fitness facility available for use by building occupants.</p> <p>6.7.2.4.2 A multi-purpose room that includes the scheduling of exercise classes, nutritional educational classes, and other similar scheduled events that focus on health and wellness.</p>	<p>Maximum = 2 points</p> <ul style="list-style-type: none"> ● One point is earned for 6.7.2.4.1. ● One point is earned for 6.7.2.4.2.
<p>6.7.2.5 The building includes the following staff spaces that promote health and wellness:</p> <p>6.7.2.5.1 Break areas that accommodate space for eating meals.</p> <p>6.7.2.5.2 A lactation room that includes a lactation station, refrigerator, and sink.</p>	<p>Maximum = 2 points</p> <ul style="list-style-type: none"> ● One point is earned for 6.7.2.5.1. ● One point is earned for 6.7.2.5.2.
<p>6.7.2.6 On the main entry floor there <u>There</u> is a public amenity with signage, such as a café, library, etc. available for public access.</p>	<p>1 point</p>

The Foreword and Appendix are informative only and do not contain mandatory requirements necessary for conformance to this Standard. As such, they may contain material that has not been subjected to public review or a consensus process. Sections V Definitions, Abbreviations, and Acronyms and VI References and Guidelines are informative only and are updated by the Secretariat upon the Consensus Body approval of all criteria.

Reference documents cited within the Standard are mandatory and are only to be applied within the context for which they are cited. Full acknowledgement and credit are given to the source organization for all references listed within this standard. Copies of the references and guidelines cited within this standard can be obtained from the full list of sources found in section VI. Incorporation of a reference is limited to the edition of the publication that is cited within this standard. Future amendments or revisions of the reference are not included.

VI. REFERENCES & GUIDELINES

Acoustical Society of America (ASA)

ANSI/ASA S12.60-2015(R2020), *Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools, Part 1: Permanent Schools*

ANSI/ASA S12.72-2015(R2020), *Measuring The Ambient Noise Level In A Room*

American Association of Retired Persons (AARP)

Livability Index

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

ASHRAE 55 -2017, *Thermal Environmental Conditions for Human Occupancy*

ASHRAE 62.1-2019, *Ventilation for Acceptable Indoor Air Quality*

ANSI/ASHRAE/IES Standard 90.1-2010, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

[ANSI/ASHRAE/IES Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings](#)

ASHRAE 188-2018, *Legionellosis: Risk Management for Building Water Systems*

[ASHRAE's Building Energy Quotient Program](#)

American Society for Testing and Materials, International (ASTM International)

ASTM E336-20, *Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings*

ASTM E1130-16, *Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index*

ASTM E1527, 2021, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*

ASTM E1528-14e1, *Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process*

ASTM E1573-18, *Standard Test Method for Measurement and Reporting of Masking Sound Levels Using A-Weighted and One-Third-Octave-Band Sound Pressure Levels*

ASTM E1903-19 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process

ASTM E2638-10(2017), Standard Test Method for Objective Measurement of the Speech Privacy Provided by a Closed Room

ASTM E3182-20, Standard Practice for Preparing an Occupant Exposure Screening Report (OESR) for Substances in Installed Building Products

ASTM D7612-21, Standard Practice for Categorizing Wood and Wood-Based Products According to Their Fiber Sources

California Department of Public Health (CDPH)

Standard Method v1.2, Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers

Illumination Engineering Society of North America (IES)

[IDA – IES Model Lighting Ordinance \(MLO\), 2011](#)

ANSI/IES RP-1-12, Table B1a: Office and Common Application Illuminance Values

ANSI/IES RP-2-17, Recommended Practice for Retail Lighting

ANSI/IES RP-3-13, American National Standard Practice on Lighting for Educational Facilities

ANSI/IES RP-4-13, Recommended Practice for Library Lighting

ANSI/IES RP-7-17, Recommended Practice for Lighting Industrial Facilities

ANSI/IES/ALA RP-11-17, Lighting for Interior and Exterior Residential Environments

IES/DG-25-17, Design Guide for Hospitality Lighting

ANSI/IES RP-28-16, Lighting and the Visual Environment for Seniors and the Low Vision Population including Errata 1020118

ANSI/IES RP-29-16, Lighting for Hospital and Healthcare Facilities

ANSI/IES RP-30-17, Recommended Practice for Museum Lighting

[ANSI/IES RP-43-21, Recommended Practice: Lighting Exterior Applications, 2021#](#)

International Organization for Standardization (ISO)

ISO 7730: 2005, *Ergonomics of the Thermal Environment*

ISO 17772-2017, *Energy Performance of Buildings*

International Association of Plumbing and Mechanical Officials (IAPMO)

ANSI/CAN/IAPMO Z1349-2021, *Devices for Detection, Monitoring or Control of Plumbing Systems*

~~**National Institute of Standards and Technology (NIST)/Building for Environmental and Economic Sustainability (BEES)**~~

~~**NIST BEES On-Line Software**~~

South Coast Air Quality Management District (SCAQMD)

Rule 1168, Adhesive and Sealant Applications

U.S. Department of Energy

Federal Energy Management Program (FEMP)

U.S. Environmental Protection Agency (EPA)

Design for the Environment Program

ENERGY STAR®

ENERGY STAR® Commercial Buildings

EPA Water Score®

Safer Choice Standard

WaterSense®