Cleveland 2030 District partners with USGBC Ohio's Northeast Region each year on a friendly Green Building Challenge. In past years, we recognized 2030 member properties for their reduction in energy use, transportation emissions, and water conservation. This year, because the pandemic continues to have a varied impact on occupancy and how buildings now operate, we changed the rules. We accepted submissions of exemplary renovation and new construction projects in five categories from the general Northeast Ohio area: Overall Exemplary Project, Energy Reduction / Management, Water Conservation / Management, Transportation Emissions Reduction, and Healthy Buildings.

Three judges appointed by Cleveland 2030 District and USGBC Ohio reviewed 21 commendable projects. We thank all those who submitted an entry and congratulate them on their meritorious work. The projects had different approaches to achieve their efficiency and conservation goals, and applied for various certification systems, making the decision process even more difficult. The judges deemed it appropriate in some categories to distinguish between new construction and renovation projects.

Many thanks to our panel of judges: Coral Pais, PE, BEMP, DLR Group, Charles Schreier, PE, Go Sustainable Energy, and Christopher Toddy, AIA, Christopher @ Architects LLC.

Congratulations to the winners of the 2021 Green Building Challenge (see below for project details):

**For Overall Exemplary Project:**
- PITT OHIO, PITT OHIO Terminal, Parma, Ohio

**For Energy Reduction / Management:**
- Cuyahoga Community College, Western Campus STEM Center, Parma, Ohio (New Construction)
- Flats East Bank /Ernst & Young, Lighting Retrofit, Cleveland, Ohio (Renovation)

**For Water Conservation / Management:**
- Northeast Ohio Areawide Coordinating Agency, Net Zero Cool Phase 1, Cleveland, Ohio

**For Transportation Emissions Reduction:**
- City of Lakewood, Public Electric Vehicle Charging Station Network Expansion, Lakewood, Ohio

**For Healthy Buildings:**
- First Interstate Development, 121 Larchmere, Cleveland, Ohio (New Construction)
- U.S. Veterans Affairs, VA Lorain Community Based Outpatient Clinic, Sheffield, Ohio (New Construction)
- Brookfield Properties, Brookfield Properties Fitwell Certification, Cleveland, Ohio (Renovation)
- Westfield, Westfield Home Office WELL Healthy-Safety, Westfield Center, Ohio (Renovation)
2021 Green Building Challenge Winner for Overall Exemplary Project

PITT OHIO, PITT OHIO Terminal

New Construction Project

Owner: PITT OHIO
General Contractor: Rycon Construction, Inc.
Owner’s Representative: Oxford Development Company
Architect: McGill Smith Punshon (MSP Design)
Sustainability Consultant: Emerald Built Environments (Cleveland 2030 District Professional Partner)
Sustainable Energy Consultant: WindStax Energy
MEP Engineers: BDA Engineering, Inc. & PVE, LLC.
Supplier of electric vehicle charging stations: ChargePoint (Cleveland 2030 District Professional Partner)

Project Rationale:
The rationale behind the construction of the PITT OHIO Terminal was to build the first trucking facility of its kind in the country designed to run on three sustainable energy resources: geothermal, solar, and wind, rather than power sources readily available from utility companies. The goal of this project was to mitigate the issue of energy overconsumption throughout all phases: design, construction, operation, maintenance, and removal. Since a project of this magnitude and expense is so innovative and new, there is not a direct blueprint or best practice of how to construct it, adding to its construction complexities.

Project Highlights:
Rycon Construction, Inc. provided preconstruction and construction management services for the PITT OHIO Terminal project. Located on a 28-acre site in the town of Parma, OH, this 113,000 sq. ft. pre-engineered metal building complex is an innovative masterpiece and pioneer in sustainable energy construction. The site includes a facility office with company picnic shelter, car charging stations for employees, trucking terminal with 130 truck bays, shipping facility and maintenance garage, and a battery storage room. A leader in the industry with a commitment to a sustainable culture, PITT OHIO has designed and constructed some of their smaller facilities to utilize sustainable energy components, most recently at their new, LEED Gold certified trucking warehouse in Harmar, PA. The PITT OHIO Terminal in Parma, OH is the first trucking facility of its kind in the country because it's designed to run on three sustainable energy resources: geothermal, solar, and wind, rather than power sources readily available from utility companies. Running a facility of this nature and size is extremely unique to the commercial real estate market because it helps to mitigate the issue of energy overconsumption. The primary goal of the project from start to finish was to reduce the building’s impact on the environment throughout all phases of development: siting, design, construction, operation, maintenance, and removal.

The first renewable energy resource incorporated were the 96 geothermal wells drilled into the property. These geothermal wells were designed to contribute to the facility office and maintenance garage’s HVAC system, thus assisting in the heating and cooling of the air in these particular sections of the site. This system takes advantage of the ground temperature of the earth, a constant 55 degrees, to heat and cool the complex.

The second renewable energy resource incorporated were the eight, 60-foot-high WindStax energy wind turbines installed on the site. Spanning roughly three to four feet in diameter, these WindStax feature tiny propellers on its sides, which allow the facility to capture and store natural energies generated by wind.

The third and final renewable energy resource incorporated were the 1,500 solar panels that cover the trucking terminal building’s roof. These solar panels allow the facility to capture and store energy generated by the sun.

Once captured and combined, these renewable energy resources allow the facility to be self-sufficient and not rely on any power from the grid. The power generated from these renewable energies is run through these three systems, which then goes into a diverter where it is transferred to an immense battery storage room, and finally goes back to the main distribution panels that run the facility. The system is projected to generate enough electricity annually to power a community of 50 average US households and offset 421 tons of carbon monoxide. Additionally, all the facility lighting runs on direct current lighting, rather than alternate current lighting, resulting in optimal energy efficiency for the terminal. Along with the renewable energy resources, this lighting component contributes to the overall costs savings and return on investment for the PITT OHIO facility in the long run. Regardless of cost, the value of this project and product delivered speaks for itself.

Rycon worked in tandem with PITT OHIO, Oxford Development Company, and McGill Smith Punshon (MSP) Design to ensure the implementation of the most advanced technology and innovative design. For example, battery storage technology of this capacity and size is always changing, so the team was constantly evaluating the most
effective and up-to-date methods and materials to use to complete the project. Plus, since a project of this magnitude and expense is so innovative and new, there is not a direct blueprint or best practice of how to construct it. “The team was excellent in maintaining a close, collaborative relationship with the design team each step of the way and overcame many obstacles,” says Jim Fields, COO of PITT OHIO. Ultimately, it was a team effort between Rycon, PITT OHIO, Oxford Development Company, and MSP Design that led to the success of the PITT OHIO Terminal. “From start to finish, Rycon helped to successfully navigate all parties through the many phases of a very detailed and complex process. The team's knowledge and experience were a large asset to the job as they were able to collaborate each discipline seamlessly into the project,” says Fields.

The project attained LEED Gold certification for the shipping and maintenance garage, 130-bay trucking terminal, and office facility. The Rycon team monitored the amount of waste accumulated during the duration of construction to ensure it was kept to a minimum. Every garbage and recycling container that was removed from the project site was tracked. Such measures helped contribute to this certification. “The [project] team managed the complexities of these LEED Gold certified buildings, coordinating solutions for MEP between the subcontractors in some exceptionally tight, challenging spaces,” notes Jim Fields. The PITT OHIO facility is a testament to green construction and waste minimization opportunities.

COVID adaptability goals were implemented after construction for the estimated 182 employees – including drivers, dockworkers, mechanics, and office personnel. Because of the size of the facility (113,000 sq. ft. over 28 acres), employees were able to safely and efficiently take proper measures to ensure social distancing and masking guidelines put in place by the CDC.

**Project Impact:**
One year after operation, a commissioning agented tested and verified PITT OHIO’s trucking terminal energy model. The environmental impact of this project is significant because the facility’s environmental footprint is minimized by the site’s sustainable energy resources. The facility’s innovative energy system enables PITT OHIO to participate in net-metering programs, provide backup energy during grid disturbances, and store the renewable energies rather than use them on demand. Features include:

- Inside and outside LED security cameras and solar charged electric security fence
- Sprinkler system in case of emergencies
- A Haz Mat certified warehouse
- Recycled and local sourced materials used for office furniture and storage components
- Oversized ceiling fans for efficient heat distribution
- Installation of low-flow fixtures and waterless urinals to reduce water use to 30% below standard
- Installation of large translucent window panels installed on the dock to allow for maximum natural light flow
- Using electric forklifts, which saves on oil, electricity, and emits zero carbon waste
- 2 EV truck charging stations serving 4 trucks / 1 EV vehicle charging station serving 2 vehicles
- Storm water detention including bioswales and water-efficient landscaping
• Installation of 870 LED lights in the space, which are 80% more efficient than traditional lighting, reducing the building’s carbon footprint by a third
• Over 1,500 solar panels producing an estimated 500,823 KWH annual yield installed on the facility’s roof
• Eight (8) 60’ WindStax wind turbines producing an estimated 38,237 KWH annually installed on-site
• A geothermal heating and cooling system created. This allows the facility to take advantage of the ground temperature of the earth – a constant 55 degrees Fahrenheit.
• The following metrics and data, calculated by PITT OHIO and confirmed by a commissioning agent one year after operation show the energy usage saved broken down by the main areas of the facility:
  o Office facility: 43%
  o Trucking terminal: 30-40%
  o Maintenance garage: 23%.
• This project earned 12 of 15 points in the section of the LEED application that addresses
  o Indoor Environmental Quality
  o Ensuring standards of outdoor air delivery monitoring
  o Indoor air quality
  o Ventilation
  o Low-emitting materials
  o Controllable lighting and thermal comfort
2021 Green Building Challenge Winner for Energy Reduction / Management (New Construction)

Cuyahoga Community College, Western Campus STEM Center

New Construction Project

Owner: Cuyahoga Community College (Cleveland 2030 District Member)
Architect: Weber Murphy Fox
Design Architect: Ellenzweig
MEP Engineering: Karpinski Engineering (Cleveland 2030 District Professional Partner)
Structural Engineering: Isaac Lewin & Associates
Landscape Design: Knight & Stolar
Civil Engineering: CT Consultants
Construction Manager: Albert M. Higley Company (Cleveland 2030 District Professional Partner)
Commissioning & Sustainability Consultant: Emerald Built Environments (Cleveland 2030 District Professional Partner)

Project Rationale:
The West STEM project was driven by the need for updated lab space and additional classroom and office space on Cuyahoga Community College’s busiest campus. The new construction of the West STEM building allowed old lab spaces to be renovated into new classrooms and workforce training spaces once the new labs were in operation.

Project Highlights:
Cuyahoga Community College is committed to building and operating healthy environments. This project reinforces the college's climate action and sustainability goals. Tri-C collaborated with Weber Murphy Fox Architects on the design of the new STEM Center on Tri-C’s Western Campus. The 64,000 square foot facility features laboratories, classrooms, both quiet study and communal space for students, as well as offices. The West STEM was certified at the Gold level under the US Green Building Council’s Leadership in Energy and Environmental Design (LEED®) program. The West STEM is energy efficient, takes advantage of daylight, reduces storm water run-off, is frugal with
water resources, provides a healthy indoor environment, and enhances the campus experience.

**Project Impact:**
This LEED Gold certified building accomplished the following:

- 39% reduction in energy use, reducing annual costs by over $50,000
- LED lights installed throughout the building for energy efficiency and long life
- Photovoltaic cells in skylight expected to produce 33,000 kWh of electricity annually while still allowing daylight into the interior
- Windows throughout the building take advantage of natural light while shading structures on the roof and exterior reduce unwanted heat gain from the sun in warmer months
- 38% reduction in domestic water usage
- 98% reduction in landscape watering
- 81% of construction waste diverted from the landfill
- Living walls in the atrium include over 4,500 plants that naturally filter air and provide a unique aesthetic

More information can be found:
[https://www.tri-c.edu/about/sustainability/documents/west-stem-leed-brochure.pdf](https://www.tri-c.edu/about/sustainability/documents/west-stem-leed-brochure.pdf)
2021 Green Building Challenge Winner for Energy Reduction / Management (Renovation)

Flats East Bank / Ernst & Young Tower, Lighting Upgrade Project

Renovation Project

Owner: Flats East Bank / Ernst & Young Tower (Cleveland 2030 District Member)
Commercial Real Estate Services: CBRE
LED Lamp Supplier: Keystone

Project Rationale:
Although this building is a high performing, LEED Silver certified building, a lighting upgrade was identified as a target efficiency project.

Project Highlights:
T8 lighting in the lobby, stairwells, dock and penthouse were replaced with LED lamps without the use of a ballast. This lighting upgrade not only saved energy and reduced utility costs, it addressed a safety issue, no longer needing to send maintenance employees on a lift to replace lamps every year. LED lamps mitigate this risk and reduce maintenance costs because their lifespan is considerably longer than fluorescent lamps.
This project used:

586 - 4' LED lamps
87 - 3' LED lamps
18 - 2' LED lamps
66 - elevator cab LED lamps

These lamps provide instant light and will last approximately 12 times longer than the lamps they replaced. Depending on the lamp type, their life will be anywhere between 25,000 to 50,000 hours. They are UV and IR free, and contain no mercury or lead. All the work to replace the lamps was done completely with in-house facilities staff.

**Project Impact:**
Building electric usage reduced by 5%
Reduced maintenance costs
Safety concerns using a lift to annually replace lamps avoided
2021 Green Building Challenge Winner for Water Conservation / Management

Northeast Ohio Areawide Coordinating Agency, Net Zero Cool Phase 1

Renovation Project

Owner: Northeast Ohio Areawide Coordinating Agency (Cleveland 2030 District Member)
Funder: Northeast Ohio Regional Sewer District (Cleveland 2030 District Community Partner)
Construction: F Buddie Contracting, LTD
Engineering: Osborn Engineering (Cleveland 2030 District Professional Partner)
Landscape Architect: MKSK Studios

Project Rationale:
“Net Zero Cool” is a three-phase, comprehensive suite of stormwater control measures (SCMs) to reduce stormwater runoff from its 100% impervious downtown Cleveland site and mitigate runoff’s harmful impacts on the Doan Brook-Frontal Lake Erie Watershed. The objectives and outcomes for Net Zero Cool are embodied in its name. “Net Zero” refers to NOACA’s ambition to capture stormwater runoff from its impervious surface area and eliminate its contribution to the combined wastewater/stormwater conveyance system. “Cool” refers to NOACA’s ambition to showcase its green infrastructure elements with eye-catching, water-themed design; mural and green wall on the sides of the building; educational placards along the sidewalk, adjacent to a proposed bioretention system; and outdoor classroom space on the green roof for lectures, tours and public meetings. According to the Green Infrastructure Grants Program Story on the Northeast Ohio Regional Sewer District’s (NEORSD’s) website, there were no green infrastructure grants (GIGs) awarded to organizations located in Downtown Cleveland (inside the Innerbelt, east of the Cuyahoga River) in the years shown (2014, 2016, 2018, 2019, 2020) other than NOACA’s Net Zero Cool Phase I. Net Zero Cool makes NOACA a true
vanguard for NEORSD-funded green infrastructure implementation; a marquee to illuminate the tremendous benefits of green infrastructure in Downtown Cleveland. NOACA hired a design/engineering team to explore opportunities through site visits, preliminary design proposals and stormwater modeling. NOACA staff and its team collaboratively created a suite of SCMs with phased implementation.

**Project Highlights:**
Phase I consists of two components:
Project A (Three-story roof water collection with bioretention) - A system to collect and convey roughly 70% of the roof water from the three-story building. This water is partially diverted through a bioretention system along the east side of the site and partially through an above-ground cistern (1,000 gallons) located in the southeast corner of the parking lot, near the south end of the bioretention system. The water stored in the cistern is available for on-site irrigation. The project includes a retrofit of the existing three-story roof drainage system so runoff descends the exterior of the east façade via a pipe. The conveyance pipe system includes a diversion so approximately 50% of the captured roof runoff enters the cistern for irrigation, while the other 50% enters the bioretention system. The concrete bioretention cells contain soil media, mulch and vegetation to filter pollutants. The soil media consist of layers of sand, pea gravel and gravel within the depression, which enable ponded stormwater runoff to be treated and filtered before it enters an underdrain pipe. The underdrain pipe conveys water to an existing catch basin in the northeast corner of the parking lot. Native plantings are recommended by the Horticulture and Conservation Department of Holden Arboretum.
Project B (one-story building extensive green wall system) - Extensive (vines on walls) green wall system for the east wall of the one-story building. Irrigation water comes from the cistern identified in Project A, with the water sourced from the roof of the three-story building. The cistern and irrigation pump are placed above ground in the southeast area of the parking lot. The design includes heat tracing to protect the system from freezing; however, winterizing the system is part of the maintenance plan. NOACA will route irrigation piping underground to the green wall.

**Project Impact:**
Project A (Three-story roof water collection with bioretention)
This stormwater management practice:
- Reduced average annual runoff from 36.71 inches/year to 24.85 inches/year
- This is a reduction of 11.86 inches/year
- This is the equivalent of 438,607 gallons/year reduced to 296,905 gallons/year
- This is a reduction of 141,702 gallons/year

Project B (one-story building extensive green wall system)
This stormwater management practice reduced:
- Average annual runoff from 36.71 inches/year to 29.04 inches/year,
- This is a reduction of 7.67 inches/year
- This is the equivalent of 438,607 gallons/year reduced to 346,967 gallons/year
- This is a reduction of 91,640 gallons/year
2021 Green Building Challenge Winner for Transportation Emissions Reduction

City of Lakewood, Public Electric Vehicle Charging Station Network Expansion

New Construction

Owner: City of Lakewood
Team: City of Lakewood Planning & Development Staff and Public Works Staff
Supplier of electric vehicle charging stations: ChargePoint (Cleveland 2030 District Professional Partner)

Project Rationale:
The City of Lakewood views the provision of public charging infrastructure as an important tool to introduce and incentivize the increased use of electric vehicles (EV). We believe it is important to continue to provide this public infrastructure over the coming years because, while commercial demand for EVs and EV charging is growing, the market is still projected to remain proportionally low compared to gasoline powered cars past 2030. Our current efforts towards continued network expansion follow two basic guidelines: first, to improve the proximity of all Lakewood residents to a charging station; and second, to increase the capacity of station infrastructure to serve more users at one time and provide a higher level of charging capability. We work to leverage available grant funding opportunities to provide new equipment to expand and improve this network. As more residents are introduced to public charging infrastructure, we intend to shift our efforts and resources towards incentivizing the private installation of this type of infrastructure via partnerships with other community organizations and multi-family residential facilities.

Project Highlights:
The City of Lakewood was among the first municipalities in the region to provide public charging infrastructure when it installed its first Level 2 charger in 2018. In 2019 and 2020, we were able to add one charger per year – including one of the first Level 3 (DC Fast) chargers in the region. This past year, by leveraging a combination of grant funding
from NOPEC and the Ohio Environmental Protection Agency (EPA), we were able to add four new dual-port Level 2 charging stations across the city. With this recent expansion, while the addition of the four stations more than doubled the number of charging ports available, the real focus was on improving proximity to residents – effectively doubling the percentage of residents within ½ mile of a station from 32% to 63%. Of note, the planning, procurement, and installation of these stations was done entirely “in-house” by a coordinated team of city employees.

**Project Impact:**
First, this project has contributed to the continued increase in charger usage across the city. Since installation:

- We exceeded 400 charging sessions per month for the first time.
- We have seen continued growth in use since, reaching almost 500 sessions in December 2021.
- The improved proximity to residents has boosted increased use and the resulting environmental benefits provided by our expanded network of stations.
- Prior to the project, the collective use of our network provided an average estimated savings of 1,613 kg of Greenhouse gas (GHG) emissions and 380 gallons of gasoline per month.
- After the project, our network now provides an average estimated savings of 5,735 kg of GHG emissions and 1,013 gallons of gas per month.
- This data is provided via the ChargePoint data/cloud dashboard which serves as the primary tool for the City’s management of our network.

This project contributes directly to the goals outlined by residents and adopted by City Council in the 2019 update to the City’s Vision (comprehensive community plan), specifically:

- Makes transportation decisions that aim to reduce greenhouse gas emissions and promote wellness.
- Improves and maintains the existing transportation infrastructure considering universal design, affordability, and environmental impact.
- Educates residents on ways to reduce their mobility carbon footprint.
- This project – and the continued provision of this public infrastructure – is a key consideration in the on-going development of the City’s Climate Action Plan (CAP).
2021 Green Building Challenge Winner for Healthy Buildings (New Construction)

First Interstate Development, 121 Larchmere Building

New Construction

Owner: First Interstate
Architect: City Architecture
MEP Engineering: Epic
General Contractor: A.M. Higley (Cleveland 2030 District Professional Partner)
Sustainability Consultant: Emerald Built Environments (Cleveland 2030 District Professional Partner)

**Project Rationale:**
First Interstate was interested in developing more affordable, middle-market housing while also creating value for a Cleveland neighborhood. Before the developer’s involvement, there were plans for a dollar store to move onto the site, which was heavily opposed by neighborhood residents. To elevate the project’s impact for current and future neighbors, it was to include mixed-use residential and first-floor commercial spaces. Environmental sustainability considerations planned for the building would provide a positive impact for residents, the community, the local economy, and the environment at scale.

**Project Highlights:**
First Interstate Properties developed a four-story 88-unit mixed-use development with 94,000 sf in Cleveland’s Larchmere neighborhood. The project includes first-floor retail,
now home to City Architecture, on-site parking, and common amenities including fitness and pet care. Building upon prior success, First Interstate Properties built this project to mirror its values of environmentally respectful high impact projects that create value for surrounding communities, for residents and occupants, and for the investment community. Great care was taken to ensure attractive and sustainable amenities were provided to residents and visitors. Larchmere Boulevard sits on an axis with views of the Cleveland skyline and the design team incorporated these views in the building layout. The fourth-floor community room is as close to the skyline axis as possible, maximizing views from that space. Resident’s also benefit from these spanning views from their apartments, with almost 80% of all occupied areas with access to Quality Views (earning the LEED Quality Views credit). Residents were also given sufficient controllability of both temperature and lighting within their residential units and within common spaces, meeting the LEED Thermal Comfort and the Interior Lighting, Controllability credits. In meeting the LEED Enhanced Indoor Air Quality credit, walkoff mats were installed at all regularly used entrances, MERV 13 filters were specified for all outdoor air units, hazardous materials were stored in negative pressure areas, and CO2 sensors were installed in all densely occupied areas. VOC monitoring devices with remote alarms were installed on each residential floor. As residential apartments have constant turnover often including re-painting of apartments and new finishes, the VOC monitors ensure adequate indoor air quality for residents and monitor ongoing operations for the building. This earned the project Exemplary Performance in the LEED Enhanced Indoor Air Quality credit. To protect the health of both contractors, residents and employees, Low/No-VOC products and emissions compliant products were used for all paints, coatings, adhesives, sealants, flooring and insulation. 121 Larchmere sits among countless dining, shopping, services, entertainment, cultural institutions and some of Cleveland’s top employers—all within walking distance or easily accessible via nearby public transportation. The area is highly bikeable with low-speed streets surrounding the project and connecting to many diverse uses throughout the city. Residents, guests and occupants of the core & shell space can take advantage of the bikeable area with the provided secure bike room. The bike-ability, walkability, and on-site gym work to improve occupant health by encouraging utilitarian and recreational physical activity.

Project Impact:
This LEED Silver certified project includes these healthy building features:

- Fitness center promoting healthy lifestyle
- Walkable and bikeable neighborhood
- Designated room to secure bicycles
- Accessibility to public transportation
- Building layout focused on access to skyline views. Almost 80% of occupied space includes views
- Controllability of temperature and lighting in resident space and community space
- Exemplary Performance was earned for LEED Enhanced Indoor Air Quality credit by:
  - The use of walk-off mats
  - MERV 13 filters
  - Hazardous materials stored in negative pressure area
  - CO2 sensors installed in densely occupied areas
  - VOC monitoring devices with remote alarms installed on each floor
  - Sensors provide visual outputs
2021 Green Building Challenge Winner for Healthy Buildings (New Construction)

U.S. Veterans Affairs, VA Lorain Community Based Outpatient Clinic

New Construction

Owner: U.S. Veterans Affairs  
Architect: Makovich & Pusti Architects  
Engineering: Osborn Engineering (Cleveland 2030 District Professional Partner)  
Sustainability Consulting: Emerald Built Environments (Cleveland 2030 District Professional Partner)

**Project Rationale:**
The new building replaced the existing VA clinic built in 1984 with current VA design prototype standards for Community Based Outpatient Clinics (CBOC). This new space has been long overdue from not only a perspective of efficiency and outdated finishes but also in cost of maintenance and ongoing repairs to the old building which was still in service long after it’s intended lifespan at the time of design and construction.

**Project Highlights:**
This project's primary goal was to fully embody the VA's mission to provide a facility that "improves the quality of life and productivity as well as protects the health, safety, and welfare of the veterans, visitors, and staff". This was accomplished by providing each patient and visitor with a comforting and inviting environment with adequate, convenient amenities such as seating and natural daylight in corridors, work stations, and common areas. A well-designed healthcare facility leads to better patient outcomes, enhances community pride, provides a healthier environment and helps not only to recruit, but to retain the best staff. The layout of the clinic spaces include controlled "team areas" where staff can access exam and consultant rooms directly without crossing paths with patients.
Patients have direct access to exam rooms from lobby areas via dedicated patient corridors.

This project was designed and constructed with Green Globes (GG) principles for new construction (GG-NC), established through the Green Building Initiative (GBI) to attain two Green Globes. The design team addressed sustainability principles through innovation, responsiveness, and third-party oversight. We analyzed the design utilizing the Energy Star Target Finder and exceeded the 75% Benchmark to attain the Energy Star rating. The design team's overall goal was to maximize resource efficiency and reduce the environmental impacts of construction and operation of the facility. Essential areas of sustainable design focus included:

- Site - Ecological Impacts, Storm-water Management, Landscaping, Exterior Light Pollution.

**Project Impact:**
This project was able to achieve the following under Green Globes 2 goals:
- For Heat Island Effect, > 70% of low slope roof has an SRI of 78 or higher and at least 50% of paved surfaces have an SRI of at least 25.
- Plant palette includes more than 50% drought-tolerant plants. More than 50% of plants are native and non-invasive.
- Passive Demand Reduction: More than 20% of building envelope has a minimum heat capacity of 7 Btu/sf.
- Light Reduction Controls: 25% of all light fixtures have controls that allow the load to be reduced by more than 50% using occupancy sensors within the space.
- Additional Green Globe credits that apply to Healthy Buildings include:
  - Ventilation / air quality and intake and exhausts
  - Control of pollutants including VOCs
  - Daylighting and lighting design
  - Thermal comfort / design
  - Acoustic comfort / design
2021 Green Building Challenge Winner for Healthy Buildings (Renovation)

Brookfield Properties, Brookfield Properties Fitwell Certification

Renovation

Key Tower Building Tenant: Brookfield Properties
Key Tower Building Management: Millennia Companies (Cleveland 2030 District Member)
Sustainability Consultant: Brightworks Sustainability

Project Rationale:
Brookfield Properties' Cleveland Office is a beautifully designed LEED- and ENERGY STAR-certified space. During the Covid-19 pandemic, we wanted to verify our healthy and sustainable practices to ensure our employees felt comfortable returning to the office.

Project Highlights:
Per Fitwel's project directory database, Brookfield Properties' Fitwel certification is the first in Northeast Ohio.

As a leader in reimagining real estate, Brookfield Properties is committed to the well-being and safety of our employees, the communities in which we operate, and the impact of our operations on the environment. Brookfield Properties is a Fitwel Champion with many certifications throughout our real estate portfolio. Combined with Brookfield Properties' Cleveland office’s LEED and ENERGY STAR certifications, the Fitwel Certification verifies Brookfield Properties’ leadership in providing a well-designed, healthy, safe, and
sustainable office for our employees. This is especially important as we return to the office while continuing to deal with Covid-19.

**Project Impact:**
Brookfield Properties' Cleveland Office received Fitwel One Star Certification, verifying more than 50 healthy and sustainable strategies and practices in our office space, including:

- Centralized location for walkability and proximity to public transit
- Open interior staircases to provide natural light and promote physical activity
- Indoor Air Quality monitoring
- Ergonomic workspaces with plenty of natural daylight and quality views
- Best-in-class cleaning and maintenance policies
- Healthy snacks and beverages
- A comprehensive Emergency Preparedness Plan and communication system

Additional monitoring at the whole building level is conducted:

- Comprehensive IAQ management plan
- MERV 13 filters
- Maintaining outside air levels
- Semi-annual inspections
2021 Green Building Challenge Winner for Healthy Buildings (Renovation)

Westfield, Westfield Home Office WELL Health-Safety

Renovation

Owner: Westfield
Engineering: BWK Engineering
Sustainability Consultant: Emerald Built Environments (Cleveland 2030 District Professional Partner)

Project Rationale:
Westfield Insurance has long been a leader in employee health, safety, and wellness, and those efforts were critical in maintaining operations during the early months of the COVID-19 pandemic. Achieving the WELL Health-Safety Rating would be an important recognition to instill confidence in those who use and visit its facilities.

Project Highlights:
Westfield utilized many of the practices and benefits already in place at Westfield while also revising and developing new policies to meet 18 of the 22 required WELL Health-Safety features required to earn the rating. As part of the certification process, Westfield amended cleaning policies, assessed ventilation and air treatment systems, and planned to monitor air quality, water quality, and mold. Westfield also met the requirements for the Reduce Surface Contact, Plan for Healthy Re-Entry, Support Mental Health Recovery, and Promote Health and Wellness features, to name a few. With the rating requiring renewal each year Westfield has its sights on meeting even more features, with 21 features likely being met in the 2022 renewal. The WELL Health-Safety Rating applies to four facilities in Westfield Center: The Home Office, Westfield Country Club, Blair Center, and Westfield Inn.

Project Impact:
The WELL Health-Safety Rating is an evidence-based, third-party verified rating for all new and existing buildings focusing on operational policies, maintenance protocols, stakeholder engagement and emergency plans to address a post-COVID-19 environment now and into the future. Jennifer Palmieri, Westfield’s Chief People Officer has stated, “The WELL Health-Safety Rating is an important recognition to instill confidence in
those who use and visit our facilities. It’s another validation of how Westfield values and promotes overall well-being.”

The WELL Health-Safety Rating scorecard includes a number of features attained by the Westfield application in the following categories:

- Cleaning and sanitation procedures
- Emergency preparedness procedures
- Health services resources
- Air and water quality management (Westfield is monitoring air quality)
- Stakeholder engagement and communication
- Innovation