

ENERGY STAR® Design Profile

The Overlook
Charlotte, North Carolina 28277



Overlook achieved Designed to Earn the ENERGY STAR certification by meeting EPA criteria for reducing energy and CO₂ emissions. This certification was an important goal as it signals to the market that the project is intended to perform in the top 25% of the nation's most energy-efficient buildings. **LS3P** is also helping the environment by delivering an energy-efficient design to our client because ENERGY STAR buildings have a proven track record and yield an average of 30 percent annual energy savings and CO₂ reductions. **Overlook** is recognized for potential future financial benefits from reduced energy costs and CO₂ emissions over the life of the building. **LS3P** found the Target Finder/Portfolio Manager tool helped evaluate how various design strategies will affect the energy estimates for the project.

The projected annual energy and CO₂ savings of the design is **51.4%** as compared to the median building. The project's estimated total annual energy savings is 14,209,383 **kBtu/yr**, with an estimated cost savings of **\$338,752 per year**. Energy-saving aspects of the design include high-performance glazing and introducing a lower window to wall ratio that partially wraps around the east, south, and west orientations. The roof comprises highly reflective TPO to mitigate the urban heat island effect. Interiors use LED lighting and additional building system technologies to reduce energy loads. To meet LEED and ENERGY STAR requirements, the building uses VAV ventilation and water-cooled AHUs managed by Tridium control systems. Energy conservation measures include introducing demand control ventilation, water-side economizers, variable speed condenser water pumping, critical zone pressure reset and variable speed cooling tower fans with temperature differences set to 12 degrees. **Overlook** also engaged in enhanced commissioning and energy optimization measures.

Overlook is located on a previously developed site with many diverse uses and offers direct access to a 100-acre community park. Landscaping is supported by a local pond reducing valuable potable water by 100%. The interiors are designed with quality views, flexible office space potential, low emitting materials and provide tenants with guidelines on how to create sustainable and healthy interior spaces.



Architect of Record:

Jeff Floyd

Engineering Firm:

MCI

Building Owner:

Northwood Office

ENERGY STAR Design Score:

90

Percent Energy and CO₂ Reduction*:

51.4%

Design Year/ Estimated Occupancy Date:

2021

Space Type:

Office

Floor Space:

302,500 SF

Estimated Energy Use Intensity:

50 kBtu/sf/yr

Estimated Total Annual Energy Use:

14,209,383 kBtu/yr

Estimated Annual Energy Cost:

\$338,752 per year

Technologies Specified:

VAV System, Tridium Control Systems, Water Cooled AHUs, Demand Control Ventilation, Water-side Economizers, Variable Speed Condenser Water Pumping, Critical Zone Pressure Reset, Variable Speed Cooling Tower Fans.

Contact Information

Jeff Floyd

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*Percent Energy and CO₂ Reductions are based on comparison to a median building of similar type.

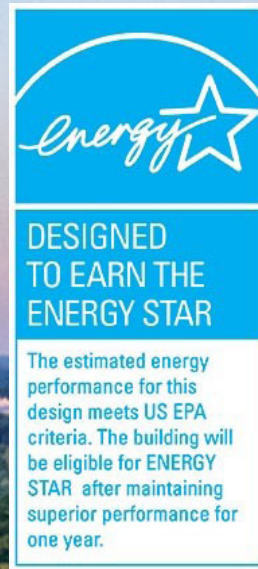
OVERLOOK

Charlotte, North Carolina

Architect: LS3P

Owner: Northwood Office

Contractor: Rodgers



LS3P NORTHWOOD OFFICE

PROJECT DETAILS:

General

- 302,500 SF flexible office plan
- Previously developed site
- Diverse uses around site
- High performance envelope & glazing
- Reflective TPO - heat island mitigation
- Tenant guidelines for green design
- Quality views for occupants
- Low emitting materials
- Pursuing LEED certification

HVAC Demographics

- Water cooled self contained AHU
- VAV system
- 706 total tonnage
- Tridium control system

Energy Conservation Measures

- Demand control ventilation
- Water-side economizers
- Variable speed condenser water pumping
- Critical zone pressure reset
- Variable speed cooling tower fans
- 12 degree - cooling tower temperature difference
- Enhanced commissioning & optimized energy performance
- Designed to earn the ENERGY STAR

PROJECT ENERGY STATISTICS:

- Source EUI = 140 kBtu/sf/yr
- Site EUI = 50 kBtu/sf/yr
- Percent CO₂ reduction = 51.4%
- ENERGY STAR designed rating = 90

ANNUAL SAVINGS STATISTICS:

- EUI reduction = 53 kBtu/sf/yr
- Energy savings = 14,209,383 kBtu/yr
- CO₂ savings = 1,412 Metric Tons/yr
- Energy cost savings = \$338,752/yr