



JOHNSON
ENVIRONMENTAL

Project Case Study

The Residences at Greenway
3008 E 26th St,
Sioux Falls, SD 57103

About the Project

Type: Multifamily apartment complex
Unit Size: 609-941 square feet, 1-2
bedrooms

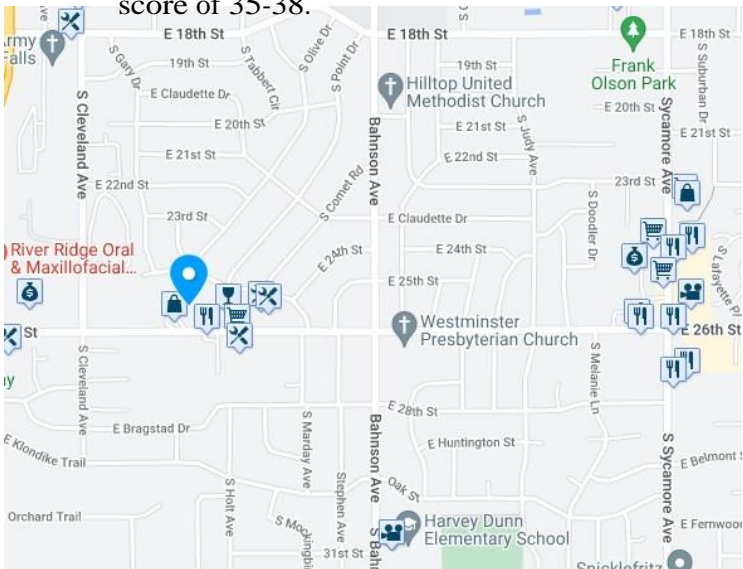
Performance: Hers index rating and
ENERGY STAR certified

Website: [The Residences at Greenway
apartments](#)

Location: Sioux Falls, SD

Verifiers voice:

Johnson Environmental specializes in consulting, building performance, testing and rating, modeling, and affordable construction, Lloyd Companies Development partnered with Johnson Environmental in order to get the proper testing and certifications needed. By doing this, the development was able to follow the guidelines of ENERGY STAR and the Hers rating index to receive a score of 35-38.



Developer: Lloyd Companies **Verifier:**

Johnson Environmental **Architect:**

VanDeWalle Architects LLC. **Structural**

Engineer: Rise Structural Associates
INC.

Mechanical Engineer: Innovative
Engineering Solutions, LLC.

Overview:

The Residences at Greenway are a multifamily apartment complex with 42 units designed for people with disabilities and/or those over the age of 62. The apartments were completely demolished and turned into a newly renovated three story building. The higher end walk and bike score of 57 and 39, makes activities easily accessible to a wide variety of people. Located less than a mile away is a Holiday gas station, Harvey Dunn Elementary School, and several more activities and necessities.

Tax credits

There are several programs that apply to the many different needs and wants of the public. The programs act as incentives for housing developers in order for them to create energy efficient units. Under section 45L of the Certification of Energy Efficient Home Credit, Madison Park Townhomes received a \$2,000 dollar tax credit for each unit declared energy efficient.

Energy Code Checklist

→Energy Certificate:

- Hers rating index between 35-38
- ENERGY STAR certified
- ENERGY STAR certified appliances

→Window value:

- U-value=0.24

→Heating/cooling:

- Seasonal energy efficiency ratio (SEER) cooling system of 16
- Air furnace 96% annual fuel utilization efficiency (AFUE)
- Programmable 7 day use thermostat

→Lighting:

- LED lighting

→Tests:

- Blower door test
 - Infiltration: Htg: 316 Clg: 316 CFM50
 - Total duct leakage: 85 CFM @ 25 pa
- Mechanical system design
- Moisture control or indoor air quality consulting

→Water heating:

- Natural gas, .93 EF

→Green energy:

- Diversion of up to 2 tons of CO2/unit

→Insulation/infiltration:

- R 23 wall insulation

Sioux Falls, SD:

The city contains many different shopping options as it has a city feel to it while still having that option of privacy. It is home to many affordable housing options as well as many more up and coming buildings. With Sioux Falls having a population of nearly 181,000 people, this is the perfect city in South Dakota if you're looking for a nice place to settle down or pass through for some time.

Features:

- Community room and outdoor area
- Annual savings up to \$446 per unit
- Washer/dryer in unit
- Drought resistance plants and irrigation systems

Chart of energy cost and consumption

Annual Energy Costs	Annual Consumption British thermal units (MMBtu)
Heating.....\$41	Heating..... 8.5 (MMBtu)
Cooling.....\$25	Cooling..... 1 (MMBtu)
Water heating.....\$28	Water heating..... 6.1 (MMBtu)
Lights and appliances..... \$197	Lights and appliances..... 8.4 (MMBtu)
Total annual energy cost per year..... \$291 per unit	Total energy consumption..... 24 (MMBtu)

*Based on a one bedroom unit. Prices may vary depending on monthly usage and the number of bedrooms.

