

## 2008 NAHRO AWARDS

### AGENCY AWARDS OF MERIT IN HOUSING AND COMMUNITY DEVELOPMENT

#### PROJECT DESIGN: MODERNIZATION/REHABILITATION PROJECT

#### HUNTER PLAZA APARTMENTS

##### 1. SUMMARY OF PROGRAM

Hunter Plaza is a 225 unit designated elderly/handicapped high rise public housing development constructed in 1954. The facility was energy inefficient, unattractive, and not completely accessible/functional to the handicapped resident population. To resolve the issues, the Fort Worth Housing Authority (FWHA) coordinated the reconstruction of the common areas and units using Capital Funds along with an established Energy Performance Contract. The project is now fully accessible with renovated interior/exterior common areas and offices. Also, energy savings measures, which included lighting, water saving devices, pumps, heating/boiler/HVAC upgrades, and window tint, were installed to reduce energy consumption throughout the facility.

##### 2. DESCRIPTION OF THE DESIGN

Hunter Plaza was originally constructed in 1954. It is an eleven story high rise located in the central business district. There are 225 public housing dwelling units in the building. The facility is designated as an elderly/handicapped only building. An energy audit was conducted. The audit determined that the facility was highly energy inefficient with regard to water, electrical and gas consumption. In addition, the common area hallways throughout the facility were dark and uninviting. The walls in these hallways were damaged as a result of wheelchair traffic. The first floor entry way, common area facades, administrative offices, mail center, and restrooms were dingy, uninviting, and difficult to navigate for the handicapped. The administrative offices and mail center were not functional from a resident perspective. The office personnel were not accessible in some cases. Special accommodation was required for residents and guests in some cases because some administrative offices were not completely accessible.

With regard to the exterior, the parking area was not graded properly causing undue difficulty for handicapped residents. In addition, security fencing was needed to limit access to a common area court yard. The primary rear entry required residents to use ..... electronic access to gain entry; however, there was no cover allowing them protection from the weather while managing the entry. The lighting was inadequate and inefficient. The paint and signage was dingy, not functional, or otherwise in poor condition.

The objective of the project was to maximize accessibility and functionality for residents and guests wherever possible and to reduce energy consumption to lower operational cost and contribute positively to the environment while simultaneously improving the aesthetic conditions throughout the facility and general functionality for all customers.

The project began in mid-2006 and completed in September 2007. The Fort Worth Housing Authority secured A/E services for project design only. Upon design completion and acceptance, FWHA managed procurement, contract administration, contractor supervision, and coordination of the project between General Contractor and the Energy Performance Contractor (The EPC was procured separately. Hunter Plaza was not the sole component in their scope of work). The A/E firm contracted for the design work was Halbach/Dietz Architects. The Energy Savings Company (ESCO) contracting the energy upgrades was Ameresco Inc. The General Contractor was the Frymire Company. In addition, the City of Fort Worth's Downtown Committee played a role in review and approval of plans for exterior work.

All objectives were successfully achieved in this project. Energy savings measures were applied throughout the facility. Mechanical upgrades including lighting, waters saving devices, and systems upgrades were applied in units, common areas, and interior and exterior facilities, improving livability while substantially reducing energy cost. Window tint was applied to reduce radiant heat effects and provide privacy.

All common area hallways were repainted. Wainscoting and corner guards were applied in all areas of the building to enhance aesthetics and reduce damage to wall surfaces resulting from wheelchair traffic. The first floor administrative office was reconstructed introducing a waiting area for residents with an open office designed to greet them as they enter. All offices were remodeled to allow for complete access by wheelchair for residents. The entry to the main lobby was opened for a more inviting appeal. All facades were renovated or replaced. This included installation of a specialized floor tile that requires no extensive maintenance in the remodeled areas. All common area walls were wainscoted and painted. The existing mail center was completely removed. The renovated mail center features more space for resident activity because rear load parcel boxes were replaced with front load. Mail boxes were lowered, counter space was installed, and new parcel and outgoing mail boxes were added for resident convenience. Prior to this upgrade residents had to go to the post office to pick up and mail large packages.

Exterior painted surfaces were repainted. The parking area was re-graded, sealed, and re-stripped. An awning was added to the rear entry to protect residents from the weather. Decorative security fencing was installed to make the court yard activity area safer. Additional locks were placed on the exterior entry requiring code input to access. Signage was replaced or added to better serve customers and guests.

As a final touch, FWHA commissioned a muralist to design and paint a custom mural at the interior entry of the building. The mural is inviting, friendly, and colorful. This art immediately appeals to those entering or living in this building.

### 3. DESIGN AND RELATIONSHIP TO SURROUNDINGS

This building is located in the central business district in downtown Fort Worth. All aspects of the exterior design required review and approval by the City of Fort Worth's Downtown review Committee. As a result, all exterior work, including window tinting, is consistent with the objectives of city officials with regard to the surrounding environment. This exterior work enhances the aesthetic appeal, functionality, and security for the building, which by extension substantially benefits the surrounding community. In addition, the energy efficiency modifications included in the project benefit FWHA's bottom line, but more importantly they benefit the community because of the reduction of our ecological foot print on the planet.

With regard to the interior work, residents now enjoy full access to areas of the facility that were previously unavailable to them. The environment is less institutional and more modern with regard to functionality and appeal. The facility is brighter and more efficiently lighted; it is colorful and open, and custom art work adorns the wall. The offices are open with a customer waiting center in place behind a new glass wall. The overall internal environment is now more conducive to living and doing business.

### 4. COST/FINANCING OF THE PROJECT

A total of \$205,800 was expended on the project using Capital Fund Program monies. Energy related work including: the installation of 243 water saver toilets, 4 urinals, 468 efficient aerators, 1008 e-efficient replacement lamps and fixtures, maintenance and repair of 520 fan coil units, installation of four pumps, and the recalibration of existing energy management devices was completed under an energy management contract at a net zero cost to the authority. As a result, the total project cost was only \$205,800.00. The per unit cost was \$915 for all work.

Materials used for the general construction for wainscoting and flooring were selected based on the low maintenance requirements and the warranty provided. The low maintenance flooring, as an example, comes with a 5 year manufacturer's warranty. The renovations will sustain the facility with general maintenance attention for 10 years or more.

The lighting lamps come with a 7 year manufacturer's warranty. All energy savings equipment installed will serve the facility for 12 years at the minimum; expectations are 20. The following represents the total **energy savings projections** for this facility on an **annual basis** based on engineered calculations: (Window tinting affects on saving are not included below. They were installed by the General Contractor outside the scope of the energy work. However, there is a positive and measurable impact). Savings include:

- 333,117 Kwh (Kilowatt Hour) electrical consumption
- 9,430 Therms of gas (1 therm = about 100,000 BTUs of heating power).
- 6,929 CCF of water (1 CCF = 748 gallons).

## 5. SUSTAINABILITY/USE OF MATERIALS

See above (4. COST/FINANCING OF THE PROJECT) for life cycle, maintainability, energy efficiency etc. With regard to resident prospective, the project was designed to benefit the resident population directly. The enhancements to the facility clearly benefit mobility for the physically impaired and functionality for all. The objective was to move the design from the conventional institutional look and feel to a more modern and inviting ambiance. In addition, the best materials and methods were selected based on resident need and use, not cost. As an example, the flooring selected increased project cost as compared to conventional VCT by 3 times. However, the wear ability and maintainability of the material increased the value because of the low maintenance needs and durability of the product selected.

## 6. INNOVATION

One of the goals of innovation is to solve a problem. The problem challenging FWHA was that Hunter Plaza Apartments were in need of extensive rehabilitation in order to enhance its livability, facilitate accessibility, and to maintain the continued interaction between the elderly and disabled, resulting in a sense of community. As a result, FWHA decided to undertake a rehabilitation and modernization project that would result in a uniquely designed facility with an environment that was pleasant, readily accessible, with improved living conditions for residents.

The result was the implementation of an innovative design concept incorporating the finest materials along with energy efficient devices resulting in the long-term viability of the facility, significant energy cost savings and enhanced operating efficiency. Living conditions have been enhanced and physical deficiencies have been remedied. Hunter Plaza Apartments now have a more modern atmosphere as opposed to the former conventional look.