

DHS NEW NEEDS REQUEST
Barrier Free Living Transitional Shelter
270 East 2nd Street

Scope of Work

The proposed project is designed to meet three specific objectives; address imminent safety concerns; allows for ongoing operations during building rehabilitation; and create a facility that will extend the useful life for an additional twenty-five (25) years.

Objective #1

Having identified unsafe and hazardous conditions at our facility that pose serious risks to our vulnerable and severely disabled residents and to staff, we submit this New Needs request for funding to address and correct serious and immediate threats to the structural concerns of our shelter.

We anticipate continued use of the existing facility, aware of both the structural deficiencies identified by our project engineer¹ and DHS, the critical needs for shelter beds in New York City – especially for the severely disabled homeless – and to undertake renovations and improvements beyond the structural issues that are addressed in Objectives #2 and #3 below.

Objective #2

Create a construction program that allows BFL to make the required safety and efficiency improvements to the building while maintaining a significant portion of existing operations during the building rehabilitation, thus allowing BFL to continue servicing our shelter residents to the greatest extent possible during construction. In summary, the additional major upgrades and improvements include replacement of the 25-year-old boilers, critical improvements of the two elevators; security enhancement; replacement of the roofing and insulation; façade and window remediation, basement waterproofing (including electrical vault), and select replacement of in room heating and air conditioning units. By replacing systems and components that are either outdated, at the end of its useful life, or will realize a long term benefit to BFL's ongoing operation due to increase efficiency, we can also anticipate an energy savings.

The design and construction team has worked closely with BFL stakeholders over the past year, visiting the site on multiple occasions, conducting extensive interviews with BFL staff, and reviewing documentation to understand both the building/facility, and accommodate BFL's unique needs and services. Based upon these investigations and studies, Construction Consulting Associates, LLC (CCA), our project engineers, have developed detailed recommendations that address the structural issues, as well as the building's exterior water intrusion, boiler and elevator upgrades, interior finishes to flooring, and certain electrical and plumbing repairs. CCA responded to an RFP that BFL issued at the request of DHS in May of 2014 (see Attachment # 4 – RFP). All repairs, refurbishments and finishes will be done to meet ADA requirements. The plans also call for replacement of the roofing and insulation to address the age of the roof.

With other ambulatory populations, the easy solution would be to transfer residents to other shelters and empty the building for construction. However, Barrier Free Living's Transitional Shelter is the only one in the state of New York able to service the needs of this particular community of severely disabled individuals that require specialized housing access, and specialized facilities to meet their day to day needs. While other shelters work with people with disabilities, no one else works with our group of people that are in need of Home Care Attendants. One of the key factors in having this group of people in one place is that BFL has the advantage of "cluster care". While not every resident qualifies to receive 24/7 home care service, when housed as a group, 24/7 care is possible. Programming, planning, and scheduling are crucial for the successful completion of this project on time and within budget.

¹ Construction Consulting Associates, LLC, an architectural, engineering, and construction consulting firm that specializes in forensic investigations, remedial solutions and construction management, founded in 1990.

Objective #3

To design a construction program that updates and renews key components and systems within the facility to provide an additional 25 years of useful life for the facility while reducing the operating and maintenance expenses.

CCA's Property Condition Assessment Report [PCAR] (Attachment # 1) dated February 2015, provides specific recommendations for the various building systems, and details the current use, age, and condition of the facility. For ease and clarity, some of the descriptions and recommendations of the major building components (extracted from CCA's report) are included below:

Project Details

Building Exterior

The exterior walls of the building are the original masonry walls that have been covered with parge coat² and painted. The condition of the walls is generally satisfactory with some areas of the walls where cracking of the parge coat was observed. Some areas of the cracked parge coat were observed to have efflorescence³ emanating from the cracks. Repair of the distressed parge coat is required to prevent a hazardous condition of falling masonry and the spreading of further damage.

Recommendations:

- Remove areas of loose parge coating and repair the cracks
- Repaint the exterior walls with an elastomeric coating to seal the walls to prevent water intrusion and further damage

The basement walls are also constructed with masonry blocks and appear to be in satisfactory condition with some cracking. Evidence of water intrusion through the basement walls was observed on the east and west walls of the north wing of the structure. Condensation and wall stains were observed at the north-west corner of the building, likely due to ground water or surface water penetrating the foundation walls. Water migration through the foundation walls is also affecting the interior wall finishes in stairway B. Water intrusion at the front foundation wall, near the underground electrical vault providing the electrical service to the building, was reported to Construction Consulting Associates. Water penetration through the masonry foundation walls is affecting the interior finishes within the basement area and will continue to degrade the condition of the masonry foundation walls.

In addition to damaging interior finishes, water intrusion is also causing mold growth within the building. Five Boro Mold Specialist, Inc. performed a mold inspection and issued a report dated April 4, 2014.⁴ The report confirms that mold growth due to water intrusion is present in the basement IT room and attributes the water intrusion to issues with the underground utility areas along the street at the front of the building.

Recommendations:

- Along the exterior of the north foundation wall and along the east and west sides of the north wing, investigate and determine the source of the water penetration through the foundation walls and develop a method to control this water which may require excavating and applying a damp proofing membrane to the foundation walls.
- Investigate and determine the source of the water through the front foundation wall near the utility service entry. Damp proof and repair this area.

The Roof

² A parge coat is a layer of mortar that is troweled onto the surface of masonry walls to provide a smooth finish.

³ Efflorescence is indicative of water exiting from behind the parge coat that will further deteriorate the condition of the walls.

⁴ See Attachment # 5 – Five Boro Mold Inspection Report.

The roof of the building is composed of built-up roofing membrane and has been coated with an aluminum asphalt coating. The roofing membrane was generally in satisfactory condition, however, several soft areas were observed. The soft areas indicate that water intrusion has occurred and that there is damage to the underlying insulation. The exterior perimeter of the roof and some interior sections are constructed with parapet walls. The parapet walls are topped with clay tiles in some areas and metal coping in other areas. A section of the metal coping was damaged, likely due to wind, and is allowing water entry under the coping (Attachment #1, PCAR, photo 29). A section of the clay tile cap was damaged and portions of the mortar holding the clay tiles were observed to be deteriorated, (Attachment #1 PCAR, photos 30 and 31). The damaged clay tiles and deteriorated mortar create a hazardous condition of loose tiles falling from the building.

The Skylights

There are two skylights installed on the main roof and skylights above the two stairways that access the roof. The skylights appear to be original to the building and are allowing water intrusion into the building damaging interior finishes and could lead to mold growth, (Attachment #1 PCAR, photo 24).

Recommendations:

- At the soft areas of the roof, cut the membrane and inspect and replace the soft insulation and repair the roofing membrane.
- Recoat the roof
- Remove the clay tile parapet cap and the damaged metal coping
- Inspect, repair, and fasten the roofing membrane under the parapet cap
- Install a new metal parapet cap
- Remove the old skylights and replace with new or fill in and roof over the openings

The Chimney

Along the east side of the building a masonry chimney extends above the roof. Portions of the chimney were observed to have deteriorated parge coat and mortar, (Attachment #1, PCAR, see photo 27). A sheet metal chimney cap was installed on the top of the chimney. The chimney cap was reportedly damaged during Super Storm Sandy and has been temporarily secured with cables and metal brackets. The chimney cap is in poor condition and requires replacement, (Attachment #1, PCAR, see photo 28).

Recommendations:

- Repair masonry damage at the chimney
- Replace the metal chimney cap and properly fasten to the masonry chimney
- Consult insurance agent for coverage determination

4th Floor Patio

On the north side of the building an exterior patio area was constructed on the fourth floor, (Attachment #1, PCAR, see photos 19 and 20). The area was covered with concrete pavers to create a walking surface. At the time of Construction Consulting Associates' inspection, many large and heavy planters were observed installed on the patio area. CCA advised that due to the paver weight and large planters the imposed loads may exceed the safe loading capacity of the structural framing and recommended that the patio not be used until a structural analysis can be performed to determine if there is an overloaded condition. All of the heavy planters have since been removed.

A short masonry parapet wall was constructed along the perimeter of the patio area and includes a chain link fence secured to the top of the parapet wall. The condition of the parapet wall was observed to be deteriorated, (Attachment #1, PCAR, see photo 22), and, along the north wall, the parapet was observed to be leaning outward, (Attachment #1, PCAR, see photo 12).

Recommendations:

- Perform a structural analysis of the patio area to determine if an overload condition exists.

- Remove and reconstruct the perimeter parapet wall, including securing the chain link fence to the parapet, to ensure the safe performance of the wall.

Windows

As part of the 1989 upgrade to the facility most of the windows were replaced with casement windows. Some of the windows appeared to be original to the building, (Attachment #1, PCAR, see photo 48). The replaced windows are approaching the end of their useful life. Many of the windows were reported to be inoperable or difficult to open and close. It is likely that many of the window seals have degraded and the energy efficiency of these windows is not up to the current standards.

Recommendations:

- Replace the existing windows with new energy efficient windows

Interior Finishes

The floor finishes throughout the facility are in poor condition. The floor finishes are vinyl composite tiles (VCT) and are failing. The floor tiles were observed to be uneven, cracking, and rough and many areas of tiles have been replaced in the past (Attachment #1, PCAR, see photos 35 – 38.). In many areas the edges of the subfloor plywood sheets are penetrating through the tiles causing cracking of the floor tiles. The uneven and cracking floor tiles (Attachment #1, PCAR, photo 35) are causing an unsafe walking condition especially for individuals with disabilities.

The interior wall finishes are typically painted gypsum wallboard and are generally in good condition, except for the walls near the distressed floor areas (see the following structural section of this report below) where continual movement of the structural floor members are causing cracking and distress to the walls, requiring constant maintenance.

Structural

The structural condition of the facility is poor, especially the floor framing below resident bathrooms where excessive rot was observed. Construction Consulting Associates (CCA) observed severely sloping and displaced floors on the first, second, and third floors. Due to the limited testing and observations during the Property Condition Assessment inspection, the cause of the displaced floors and the extent of the damage to the structural system could not be determined. The magnitude of the observed floor displacement required CCA to issue a letter (dated January 20th, 2015 – see Attachment # 2) warning of possible life safety concerns with the structural framing of the floors and submitted a proposal to further investigate these issues.

BFL accepted CCA's proposal to further investigate the cause of the apparent structural deficiencies. On January 26th and February 3rd, 2015 CCA performed additional inspections including removal of finishes to observe the condition of the structural framing. The framing below the second floor showers and lavatories in the north-east wing of the building was severely deteriorated due to water intrusion from the showers. The main support beam in this area, a four ply Laminated Veneer Lumber (LVL) member, was deteriorated and extremely deflected. The plywood subfloor was also severely deteriorated and was easily penetrated completely through with a probe.

Due to the observed conditions, CCA recommended that the second and third floor showers and lavatories in the north-east wing of the building, accessed from bedrooms #2, #3, #8, and #9, be shut down until repairs are made. These showers and lavatories remain closed through the present awaiting remediation.

Construction Consulting Associates also viewed the floor framing supporting the showers and lavatories accessed from bedroom #5 and bedroom #6. Water staining and damage to the floor joists and beams were observed. During CCA's inspection on February 3rd an active water leak was observed below the shower room of bedroom #5. A substantial amount of water was flowing through the floor at and around multiple plumbing pipes. The location of the water leakage appeared to be coming from below the chase wall between the shower rooms. It is likely that the water is penetrating through compromises in the shower tile floor and or walls. The issues with the tiles are likely due to excessive movement or deflection of the floor framing caused by the

water damage. Repair of the floor framing, subfloor, and tiles need to be completed as soon as possible before further damage creates an unsafe condition.

Construction Consulting Associates observed the floor framing supporting the shower and lavatory rooms accessed from bedroom #10. CCA observed water staining on the floor joists, beams, and subflooring plywood. Some deterioration was observed to the plywood subfloor.

The showers and lavatories within the twelve resident bedrooms are a continual source of water intrusion into the structural floor framing affecting the strength of the members which is causing excessive movement (deflection) of the floors. The movement of the floors is causing cracking and openings within the tile floors and walls of the showers which is allowing more water intrusion, resulting in a progressive failure in and around the showers and lavatories.

Recommendations:

- Due to structural concerns, the use of the showers and lavatories accessed from bedrooms #2, #3, #8, and #9 have been discontinued. The floor framing for these areas need to be replaced as soon as possible. This will require removal of all partition walls and ceilings.
- For the other bedrooms' showers and lavatories, remove wall and floor tile finishes and underlying grout, remove subfloor, inspect framing for damage and replace as needed. Replace subfloor, grout, and tile finishes.

Electrical

Electrical service is provided to the building from an underground utility vault located external to the building and adjacent to the basement's IT Room. In 1995, an explosion and fire occurred in the utility vault. Repairs to the vault and related equipment were completed by the Con Edison in late 1995. A source of water leaks into the basement appears to originate from this repaired location. No water or latent deficiencies were observed in the IT Room utility service closet.

Primary electrical service to the building is provided through a 600VAC, 1,200 Amp 3-pole General Electric high pressure contact switch located in the electrical equipment room. Primary electrical distribution within the building is through General Electric 240VAC panelboard units with varying amperage ratings of 30, 60, 100 and 200 amps.

A generator set, located in a separate outbuilding on the property, provides backup power to the building during utility power interruptions. The ONAN, 335 horse power diesel powered generator set is rated at 250KW, sufficient to provide approximately one-half the average electrical demand of the facility. Fire Sprinkler pumps, Fire Alarms and building security systems are among the services connected to this back up power system. An ONAN transfer switch is located in the Electrical Equipment Room.

There are an inadequate number of electrical outlets in many locations throughout the building. As a result, many electrical outlets have power strips, extension cords, and other devices in place to accommodate multiple electrical power cords of residents and staff. Low voltage wiring for communication and security has been installed improperly in many cases. In the basement IT room wiring routed through an HVAC grill (Attachment #1, PCAR, photo 51). In the second floor elevator lobby wiring for a speaker was routed through an HVAC grill. These "work-arounds" have been necessitated by the lack of adequate, grounded electrical outlets.

The fourth floor kitchenette area has electrical outlets near the sink without ground fault circuit interrupter protection (Attachment #1, PCAR, see photo 53).

Recommendations:

- Add additional circuits and electrical outlets throughout the facility to conform to the present code.

- Additional outlets at kitchen areas to conform to the present code and replace existing outlets with Ground Fault Circuit Interrupter (GFCI) at kitchen and bathroom areas.
- Replace low voltage wiring that is improperly installed through HVAC ducts, etcetera, with properly routed wiring.

HVAC

The building is principally heated by forced hot water on a single zone and is augmented by heat pumps and through-wall, ductless systems. Forced hot water is provided by two Weil-McLain hot water boilers, each coupled to individual gas-fired Power Flame burners. One system, designated as #1, operates as primary, the other, #2, is secondary and fires only under high demand or, under a no-fire condition on boiler #1. Redundant circulator pumps are in place. Remedial services are provided by a local tradesman. Both boilers have been inspected and certified. Make up air is provided by a through wall vent to the building exterior. These systems were installed in 1989.

Through-wall, ductless systems for heating and cooling are located in elevator lobbies on the third and fourth floors and in resident rooms. The second floor elevator lobby unit provides cooling only. These systems have a self-contained compressor/condenser for cooling and are, where applicable, plumbed with forced hot water from the main boilers to provide heat. Dates of manufacture are not known – no manufacturers placard was found.

Split systems/air handlers are located in multiple locations throughout the building, including the basement level, within and adjacent to the elevator machine room and corridor closets on the second, third and fourth floors. These split systems are supplied with compressed refrigerant from externally mounted compressor/condenser units for cooling. Pre-heaters have been installed to these systems to provide hot air to the corridors and other spaces in close proximity. These split systems along with the through-wall, ductless units are the source of cooling for the building. Dates of manufacture for these multiple split systems range from 1989, 2002 and 2005.

No observed failures or dysfunction of this equipment was observed.

Recommendations:

- Replace boilers with new, energy efficient boilers
- Add multiple heating zones for comfort and energy conservation
- Replace air-handlers/split systems for energy efficiency

Additional exhaust ventilation of the resident's kitchen, laundry and other spaces is provided by five roof mounted power ventilator/exhaust fan systems. Boiler/burner exhaust is routed, with no power assist, through a chimney and flue which, at roof level, is topped with an "H" pipe. The trash chute, serving all four floors and the trash compactor in the basement are ventilated by a non-powered ventilation pipe that penetrates the main roof and is terminated with a weather cap. No deficiencies of the exhaust system were observed and no exhaust problems were noted. The exhaust power ventilators appear to be relatively new and in good condition.

Elevators

Two elevators were installed as part of the 1989 upgrade. The elevators have been operating for over 25 years and are in need of an extensive overhaul to provide long term trouble free operation of the elevators. The elevators are a vital component for the disabled residents that are serviced by this facility and require continuous, trouble free operation.

BFL has reported that the elevators require a substantial amount of maintenance to keep the elevators functioning. The hydraulic pumps have burned out at least four times and it appears that the actual utilization rate of the elevators greatly exceed the rating of the installed elevators. It has been reported to Construction Consulting Associates (CCA) that the elevator pistons were installed off center which has caused increased

wear and tear to components. CCA observed that the operation of the elevators is rough and does not always provide a smooth ride. The cars vibrate and shake during operation indicating an issue or issues with the functioning of the elevators. BFL provided documentation that indicated the cost to upgrade the elevators is estimated to be \$350,000.

Recommendations:

- Provide a complete overhaul and modernization of the two existing elevators.

Two separate hydraulic pumps and controls are provided in the Elevator Machine Room. Covers from the cooling fans of one unit have been removed and a catch pail has been placed to collect hydraulic fluid. No active fluid leak was observed by CCA. The missing cover should be replaced for personnel safety.

Fire Protection

The facility is equipped with fire suppression sprinkler system. The sprinkler system appears to be generally in satisfactory condition. In many areas the sprinkler head covers were missing and the sprinkler heads appear to be recessed into the ceiling's gypsum wallboard. The main sprinkler control valve was observed to have a corroded flange connection.

The sprinkler system includes FireTrol controls located in the Boiler Room and the Electrical Equipment Room. Tyco Central Office controls are located in the under-stair closet of the basement elevator lobby. The FireTrol system is connected by automatic transfer switch to the emergency generator set.

Recommendations:

- Perform a complete inspection of the fire alarm and fire suppression system by a qualified fire protection engineer or company.
- Address any and all deficiencies with the system and make any required repairs or upgrades for the system to comply with the present code.

Plumbing

Domestic water is supplied from the City through a main shut-off valve and accompanying Federal Pump Corp. metering and pump control system located in the Gas Meter Room/Sprinkler Control Room on the basement level.

Domestic hot water is supplied by tandem Metal press, J-Series hot water heaters located in the boiler room. These are heat exchanger systems drawing forced hot water from the boiler system.

The plumbing system throughout the building was observed to be in satisfactory condition with two items which violate the plumbing and/or Americans with Disabilities Act (ADA) code. The two items of concern are:

1. The sink drains in the residential toilet rooms are not insulated or otherwise protected to prevent people in wheelchairs from potential burns.
2. The utility sinks in the janitor closets have a chemical feed system installed directly into the water supply plumbing with no cross connection protection, (Attachment #1, PCAR, see photos 49 and 50).

Recommendations:

- Insulate drain pipes under lavatory sinks
- Install backflow preventers where chemical feed lines are connected to the water supply or disconnect the chemical feed line connections.

Construction Approach

The project will be performed over two to three phases in order to keep the facility at least partially operational. One phase of construction will shut down the north half of the building for the interior structural and bathroom re-construction while allowing the south half of the building to remain operational. When this work is completed and the residents are relocated, demolition and construction of the south half of the building

can start. The exterior and major building system repair and upgrade work will be scheduled when the phased construction allows. Detailed planning and scheduling of the work will be required for a successful project.

Based upon Construction Consulting Associates' analysis to date, the estimated time of construction for substantial completion/occupancy of all 48 beds will be fourteen to sixteen months from the award of funding.

It is important to note that throughout the project BFL will maintain space and facilities to service our day programs, including support services to our 24 residents, and continued counseling, advocacy, information, case management and referral services.

Sequentially, the project is broken down as follows:

Mobilization – Phase 1 - North:

Temporary protection, signage, security, site access, storage, temporary construction entry (west elevation to outdoor patio), and select removal of FFE:

Demolition (North half of building): (estimated 6 weeks)

Ground floor dining room flooring, sheathing, kitchen ceiling
2nd floor bathroom walls, flooring and fixtures
3rd floor bathroom walls, flooring and fixtures
2nd and third floor VCT tile
4th floor exterior parapet walls, CNC pavers
Select basement ceilings to expose structural members

Interior Structure and Finishes (sequenced) (estimated 12-14 weeks)

1st floor kitchen ceiling/ 2nd floor joist frame; select structural beam installation
1st floor dining room joist leveling; door framing, new sheathing and flooring as required. Note: new floor covering to extend throughout 1st floor upon completion.
2nd floor bathrooms (see CCA reports and floor plans): replace beams and joists per design. Install new sheathing, tile, walls, and ceilings; re-install plumbing; rewire as required
3rdnd floor bathrooms (see CCA reports and floor plans): replace beams and joists per design. Install new sheathing, tile, walls, and ceilings; re-install plumbing; rewire as required.
Note: new floor covering throughout 2nd and 3rd floors upon completion.
Interior painting, hardware, lighting, signage: complete in all public areas and residential spaces on 2nd and 3rd floor. 4th floor: misc. FFE relocation and protection to access repairs at exterior patio.

Mobilization – Phase 2 - South:

Temporary protection, signage, access, and storage for construction of the south half of building.

Demolition (South half of building): (estimated 4 weeks)

2nd floor bathroom walls, flooring and fixtures
1st floor ceilings under bathrooms
3rd floor bathroom walls, flooring and fixtures
2nd and 3rd floor VCT tile

Interior Structure and Finishes (sequenced) (estimated 10-12 weeks)

1st floor kitchen ceiling/ 2nd floor joist frame; select structural beam installation
2nd floor bathrooms: replace beams and joists per design. Install new sheathing, tile, walls, and ceilings; re-install plumbing; rewire as required.
3rdnd floor bathrooms: replace beams and joists per design. Install new sheathing, tile, walls, and ceilings; re-install plumbing; rewire as required.
Note: new floor covering throughout 2nd and 3rd floors upon completion.
Interior painting, hardware, lighting, signage: complete in all public areas and residential spaces on 2nd and 3rd

floor.

Mechanical Work⁵

Elevators: One of the two elevators will remain operational during construction. Both of the two existing elevators require safety and modernization upgrades. While the existing cans will be utilized, the mechanical lifts and attendant safety equipment will be upgraded. One of the two elevators will provide staff, resident and client access to floors 2 through 4. The second elevator will be utilized for construction access during the initial phases of work (months 1 through 5). At such time as the interior structural and fit up work is substantially complete, the elevators will then be taken off line, (one at a time) to allow for the installation of new lift equipment and modernization. Purchase orders and sequencing of this portion of the work will be initiated early in the contract process to insure timely fabrication and delivery of the parts to ensure the work is completed and in service by the end of month nine.

Boiler Replacement: One boiler to remain on-line while the other is replaced.

PTAC Units: Repair/replace PTAC units during phased construction of resident rooms.

Sprinkler System: Shut down portion of sprinkler system as required for construction work of resident bathrooms.

Electrical Work: Re-wire bathrooms with code compliant electrical work. Install additional outlets where required.

Hazardous Materials

To the best of our knowledge, all asbestos has been removed from the facility.

Sub Surface Conditions

Sub surface soil conditions are not an issue of concern in this project. We do note that leaks in the basement through the foundation walls have been ongoing for many years and require remediation to eliminate excess humidity in the basement that is causing mold, and corrosion. The basement periodically takes on water during periods of heavy rain. Additionally, one or more of the storm drains at the north/northeast elevations may require replacement. To address the basement leaking issues the scope of work will include excavation and installation of damp proofing of the foundation walls including the concrete basement ceiling slab at the north-west corner of the building.

Time Line

The following is the estimated time to perform the required tasks:

- Design – Architectural & Engineering - 3 months
 - Field investigation to acquire all relevant information
 - Architectural and Engineering design
 - Construction document production
 - Preparation of bid documents
- Contract negotiations – 2 months
 - Negotiate Owner/CM/GC contract
 - Review contractor costs
 - Sign Owner/CM/GC contract
- Construction – 9 months
 - Scheduling and planning
 - Demolition
 - Construction

⁵ See CCA's Property Condition Assessment Report for additional information (Attachment # 1).

Current Conditions

Construction Consulting Associates produced two reports concerning the structural issues, dated January 20th, 2015, and February 6th, 2015 (Attachments #2 and #3, respectively). These two reports reveal the nature, extent, locations, and findings concerning the significant structural issues found within the currently occupied facility. CCA's reports include specific recommendations for remedial design and repairs to rehabilitate the structural issues on the first, second, and third floor bathrooms. As noted in CCA's conclusions, the nature and extent of the structural problems arising out of long-term water damage to the framing and flooring at the resident bathrooms is severe, and has caused BFL to close portions of the residential facility resulting in a loss of up to 16 residential beds until repairs are made. These repairs will also affect the use of the first floor kitchen and dining areas for a period of up to six months during construction, during which time BFL will provide meals via an alternate, in-house location and method (see Page 11 **Alternate Food Service Delivery**).

Rehabilitation Durability of Finishes

The intent of the rehabilitation project for Barrier Free Living's facility at 270 East 2nd Street, is to repair the structural deficiencies of the structure to provide a safe working and living environment and to extend the life cycle of the building and components that will reduce maintenance expenditures.

While the design plans and specifications have not yet been prepared, the intent is to specify commercial or institutional grade, durable products to maximize the life cycle of the building. The goal is to specify products and finishes with an estimated life cycle of 25 years or greater. The systems to be upgraded include:

- Structural – manufactured structural wood beams and girders (glu-lam, LVL) with an estimated service life of 50 years
- Exterior wall finish – repair the defects in the existing stucco wall finish and paint with an elastomeric coating to provide durable weather resistant barrier
- Bathrooms – commercial grade ceramic or porcelain tiles on cement board sheathing, porcelain floor tiles, and institutional grade plumbing fixtures
- Flooring – commercial grade Vinyl Composite Tiles (VCT) or sheet vinyl flooring
- Windows – commercial grade, low E, energy efficient windows, aluminum clad casement, sliders, or double hung to replace existing
- Boilers – energy efficient boilers to replace existing over 25 years
- HVAC – replace deficient units as required with new
- Elevators – upgrade elevators to reduce maintenance requirements and extend life for another 25 years
- Foundation waterproofing – water proofing membrane on exterior side of foundation walls to substantially reduce or eliminate water intrusion through the foundation walls

The repairs will provide a long lasting and safe living and working environment. The new building components will require routine and preventive maintenance, as all buildings require, however this repair should substantially reduce the time and expense of maintaining the present condition of the building.

Barrier Free Living
270 E 2nd Street, New York, NY

| Item/ description of Direct Costs | Area (sq. ft.) | Quantity | Unit cost | Total |
|--|----------------|----------|------------|-----------------------|
| Demo of bathrooms | 160 | 14 | 2,660.00 | \$37,240.00 |
| Floor framing at resident bathrooms | 160 | 14 | 23.49 | \$52,617.60 |
| Floor framing at kit/dining (partial) | 620 | 1 | 23.49 | \$14,563.80 |
| Build new resident bathrooms & showers | 1 | 14 | 44,200.00 | \$618,800.00 |
| Plumbing allowance for bathroom work | 1 | 14 | 3,813.00 | \$53,382.00 |
| tile and sub-floor replacement | 4,200 | 4 | 15.09 | \$253,512.00 |
| Int. painting, wall repair, base cove allowance | 1 | 4 | 16,200.00 | \$64,800.00 |
| Elevator upgrades | 1 | 2 | 165,250.00 | \$330,500.00 |
| Roof resurfacing | 5,300 | 1 | 12.11 | \$64,183.00 |
| Exterior painting | 20,400 | 1 | 3.56 | \$72,624.00 |
| Parge coat repair | 5,000 | 1 | 12.60 | \$63,000.00 |
| Parapet wall cap | 1 | 1 | 45,600.00 | \$45,600.00 |
| Parapet wall rebuild, allowance | 1 | 1 | 13,300.00 | \$13,300.00 |
| 4th floor patio, remove and reinstall pavers, integrate new flashing with existing roof, allowance | 1 | 1 | 11,400.00 | \$11,400.00 |
| Foundation wall damp proofing | 1 | 1 | 160,000.00 | \$160,000.00 |
| South sidewalk R&R for damp proofing | 1 | 1 | 190,000.00 | \$190,000.00 |
| Window replacement - double hung | 1 | 68 | 1,700.00 | \$115,600.00 |
| Skylights | 1 | 4 | 6,000.00 | \$24,000.00 |
| Electrical upgrades | 1 | 1 | 59,000.00 | \$59,000.00 |
| HVAC upgrade allowance | 1 | 1 | 200,000.00 | \$200,000.00 |
| Boiler replacement | 1 | 2 | 47,000.00 | \$94,000.00 |
| Front door and intercom | 1 | 1 | 6,400.00 | \$6,400.00 |
| Subtotal: Direct Costs | | | | \$2,544,522.40 |

| General Conditions | | % sub-total | | |
|---|-----------------|-------------|----|---------------------|
| Ongoing Temporary Protection | \$1,000 per wk. | | 30 | \$30,000.00 |
| Lifts, Scaffolding, Cranes, Sidewalk Bridging | lump sum | | | \$67,000.00 |
| Dumpster, allowance | Allowance | | | \$40,000.00 |
| Onsite general labor (GC): | Allowance | | | \$60,000.00 |
| GC Supervision (full and part time) | | | | \$135,000.00 |
| General Contractors O&P: (10% OH +5% Profit) | | 15 | | \$431,478.36 |
| Subtotal: General Conditions | | | | \$763,478.36 |

| | | | | |
|--|--|--|--|-----------------------|
| Total: Direct Costs and General Conditions (Hard Costs) | | | | \$3,308,000.76 |
|--|--|--|--|-----------------------|

| | | | | |
|---|--|--------|----------|-----------------------|
| Architectural / Engineering Fees (9% of Direct) | | | 9% | \$229,007.02 |
| Contract procurement: Planning, Budgets, Scope | | | | \$40,000.00 |
| Owner's Representative Staffing: | | 36 | 3,900.00 | \$140,400.00 |
| Owner's Representative fee | | 6 | | \$152,671.34 |
| Permitting/Expediting allowance | | | | \$25,000.00 |
| Construction Administration- Architect | | 1.50% | | \$58,426.19 |
| Bonding | | 1.20% | | \$46,740.95 |
| Insurance | | 3.42% | | \$120,388.85 |
| Title Insurance | | | | \$15,000.00 |
| Survey | | | | \$7,000.00 |
| Owner's Insurance for Construction | | | | \$22,000.00 |
| Additional Temporary Kitchen Staff | | | | \$17,016.00 |
| Equipment | | | | \$5,947.00 |
| Total Other Development Costs | | | | \$879,597.34 |
| Total: Direct Costs/Gen Cond, OH&P | | | | \$4,187,598.10 |
| Contingency (10% of Direct costs) | | 10.00% | | \$254,452.24 |

| | | | | |
|--------------------|--|--|--|-----------------------|
| Grand Total | | | | \$4,442,050.34 |
|--------------------|--|--|--|-----------------------|

Project Costs

Alternate Food Service Delivery

Our Transitional Housing Director has determined, with consultation from our Food Service Chief Cook that we will need 1.26 FTEs in kitchen assistants for the six months when meals will be served in the lobby areas on the second and third floors. This will keep all residents safely away from all active construction areas.

| | |
|--|--------------------|
| 1.26 FTE kitchen assistant @\$11.50/ hour x 1147 hours | \$13,190.50 |
| Fringe 29% | \$ 3,825.24 |
| Subtotal: | \$17,015.74 |

There is a need for additional equipment to serve meals without a kitchen and cafeteria. Meals will be prepared in our First Floor training kitchen with an upgraded double oven and meals will transported to the large lobby areas near the elevators on each residents' floor:

We have determined that it is more economical for us to buy a stove than to rent a commercial stove for six months. We will continue to leave the new stove in place for cooking groups.

| | |
|--|-------------------|
| The cost of a Whirlpool 6.7 cu.ft. double oven with range | \$1,174.00 |
| Cost of 2 meal delivery carts (\$1,749 each) | \$3,498.00 |
| Four cases of trays (that fit cart) | \$ 104.84 |
| 10 Height adjustable folding tables that can be Stowed away between meals (116,99 each) | \$1,169.90 |
| Subtotal: | \$5,946.74 |

Total: **\$22,962.48**⁶

⁶ This total is already included in the chart on Page 11, under **Total Other Development Costs**