PROJECT CAPITAL NEEDS ASSESSMENT
SECTION 232/223(f)
POLK CITY NURSING AND REHABILITATION
1002 WEST WASHINGTON AVENUE
POLK CITY, IOWA 50226
PROJECT NO. 103P067025

Prepared for

Birchwood Acquisitions, LLC
2045 W. Grand Avenue, Suite B #34572
Chicago, IL 60612
Attn: Mr. Andrew Sfreddo

Report Date: November 22, 2019
On-Site Date: November 12, 2019

Prepared by

Tetra Tech, Inc.
712 Melrose Avenue
Nashville, Tennessee 37211
Telephone (615) 252-4788

Ronald Grover
Senior Engineer/Needs Assessor

Andrew J. Kandray
Senior Engineer

PROJECT CAPITAL NEEDS ASSESSMENT

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NEEDS ASSESSOR'S CERTIFICATION

I, Andrew Kandray, inspected the property located at 1002 West Washington Avenue, Polk City, Iowa on November 12, 2019.

The scope of the 232/223(f) Building Inspection consisted of an evaluation of the project site, building exteriors, roof, recreation facilities, interior service and common areas, mechanical systems, and 10 of the project's 32 residential rooms that are situated in one building constructed in 1976.

The inspection was visual in nature and did not include any destructive testing or taking of samples. No detailed analyses or calculations were made to verify the adequacy of any building systems.

Cost estimates used in the report are based on costs experienced on similar projects, costs experienced by the on-site management, or discussion with local contractors. The costs include state and local taxes.

No identity of interest, as defined in the contract, exists between me or my firm and the sponsor, property owner, principals of the sponsor's, owner's, Borrower's firms, the property management entity, or any contractors or subcontractors involved in the rehabilitation of this project.

I have not discussed my findings with the Lender's Third Party Appraiser.

Tetra Tech, Inc.

Andrew J. Kandray
Needs Assessor

Date: November 22, 2019

PURPOSE AND SCOPE

Tetra Tech, Inc. (Tetra Tech) completed a Project Capital Needs Assessment (PCNA) for the property in accordance with Tetra Tech's proposal, executed by Mr. Andrew Sfreddo, Birchwood Acquisitions, LLC, on November 1, 2019.

The purpose of this study was to observe and provide a report on the physical condition and maintenance of the property and its improvements. This report addresses items that we believe are significant for the continued operation of this facility in its current usage and occupancy, consistent with comparable properties of similar age.

The assessment was performed in accordance with ASTM E 2018-15, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process, U. S. Department of Housing and Urban Development (HUD) Handbook 4232.1, Healthcare Mortgage Insurance Program Handbook, effective January 19, 2017, and HUD Project Capital Needs Assessment (PCNA) Statement of Work, Section 232/223(f), revision date May 16, 2017. Tetra Tech's scope of services included a site visit, observations of the site and its improvements, reviews of available construction and maintenance documents, site survey plan, legal description, location maps, local building/fire/health code compliance reports, and interviews with various persons. The observations were performed to assess the general physical condition and maintenance status of the property and to recommend repair and maintenance items we consider significant for the property to continue in its current operation or to be restored to a good condition consistent with comparable properties of similar age.

Definitions of the terms used in this report to describe overall conditions include the following: Good--no remedial work is recommended; Fair--system is aging or minor remedial work is recommended; and Poor--replacement or major remedial work is recommended. Tetra Tech may have assigned combination assessments such as "fair to good" in evaluating various construction components.

Tetra Tech prepared opinions of probable cost for recommended repairs. The opinions of probable cost for repairs have been divided into four categories: Critical Repair Needs, Non-critical Repair Needs, Capital Reserves, and Major Moveable Equipment (MME) Reserves. Critical Repair Needs are those repairs that are considered health and safety issues and are beyond the scope of regular maintenance and should be performed prior to loan closing. Non-critical Repair Needs are those repairs that are beyond the scope of regular maintenance and should be performed within 12 months of loan closing. Capital Reserves and MME Reserves are items needing repair or replacement that are beyond the scope of regular maintenance and are necessary to maintain the overall condition of the property. These items have been assessed over 15 years.

LIMITING CONDITIONS

This report was compiled based partially on information supplied to Tetra Tech from outside sources including representatives of the client, the property owner, the property manager, contractors servicing the property, or local building code officials and other information in the public domain. The conclusions and opinions herein are based on the information Tetra Tech obtained in compiling the report. This information is on file at Tetra Tech's office. Tetra Tech makes no warranty as to the accuracy of statements made by others that may be contained in the report, nor are any other warranties or guarantees, expressed or implied, included or intended by the report, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing the same or similar services. Because the facts forming the basis for the report are subject to professional interpretation, differing conclusions could be reached. Tetra Tech does not assume responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with submitted recommendations or suggestions does not ensure elimination of hazards or the fulfillment of client's obligations under local, state, or federal laws or any modifications or changes to such laws. None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings of fact from records examined.

This report should not be construed as technically exhaustive. This report does not warrantee or guarantee compliance with any federal, state, or local statute, ordinance, rule or regulation including, but not limited to, building codes, safety codes, environmental regulations, health codes or zoning ordinances or compliance with trade/design standards or the standards developed by the insurance industry.

Our findings and conclusions were based primarily on the visual appearance of the property at the time of our property visit and on comparative judgments with similar properties in the Tetra Tech property observer's experience. Birchwood Acquisitions, LLC (Birchwood) and HUD are herewith advised that the conditions observed by Tetra Tech are subject to change. Our property observations included only areas that were readily accessible to our representative without opening or dismantling any secured components or areas. Tetra Tech's suggested remedies were determined under time constraints, and did not include invasive investigation, component sampling, laboratory analysis, exploratory probing, an environmental site assessment, or engineering evaluations of structural, mechanical, electrical, or other systems with related calculations and review of design assumptions. Since destructive testing was not within the scope of services of this report, Tetra Tech was not able to visually evaluate if fire retardant treated plywood, polybutylene piping, or aluminum wiring exists within the concealed areas.

Some conclusions are partially based on information provided by others including representatives of the client, the property owner, the property manager, contractors servicing the property, or local building code officials. For the purposes of this report, Tetra Tech has assumed this information provided by others to be complete and accurate unless otherwise noted. Tetra Tech assumes no liability for inaccurate information provided by others.

Our cost estimates represent a preliminary opinion only and are neither a quote nor a warranty or representation as to the actual costs that may be incurred. These estimates are based on cost data that may not fully characterize the scope of the property conditions and are further limited by possible future changes in technology, by regulatory requirements, by property location, and by

contingencies that cannot reasonably be discovered until after commencement of on-property construction activities. These estimates do not address the cost impact of the possible presence of asbestos-containing materials (ACM), lead-based paint, mold, other environmental concerns, or seismic issues on repair, renovation, or demolition activities. Tetra Tech shall not be liable to the Client nor any other party for any costs or expenses that may be incurred in excess of these estimates, for any losses that may be incurred as a result of these estimates being different from the actual costs, nor for any damages whatsoever in connection with these estimates.

Birchwood and HUD are the only parties that have been involved in shaping the scope of services needed to satisfactorily manage risks from their points of view; therefore, Birchwood and HUD are the only intended beneficiaries of this report. The scope of services performed in execution of this assessment may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or its findings, conclusions, or recommendations is at the risk of said user. Tetra Tech is not responsible for conclusions, opinions, or recommendations made by others based on this information. Reliance on this report by parties other than Birchwood and HUD may result in reliance on assumptions whose extent and nature could distort the meaning and impact of the estimates given in this report. This could result in misinterpretation of these estimates and unwise actions based on those misinterpretations. As such, no party, except Birchwood and HUD should rely upon this report. With the consent of Birchwood, Tetra Tech is available to work with other parties in developing probability estimates, given other parties unique risk management concerns.

No PCNA report can wholly eliminate the uncertainty regarding the presence of physical deficiencies and the performance of a property's building system. Preparation of a PCNA report in accordance with ASTM and HUD guidelines is intended to reduce, but not eliminate, the uncertainty regarding the potential for component or system failure and to reduce the potential that such component or system may not be initially observed. The guidelines also recognize the inherent subjective nature of a consultant's opinions as to such issues as workmanship, quality of original installation, and estimating the remaining useful life of any given component or system. There may also be other alternate or more appropriate schemes or methods to remedy the physical deficiency. Our opinions are generally formed without detailed knowledge from those familiar with the component's or system's performance.

SECTION 1
SCOPE OF INSPECTION

1. A. Desk Review

The following table summarizes the documents that were requested for review.

Exhibits received and reviewed:	YES	NO
Survey Map	X	
Legal Description of the Property	X	
Location Maps	X	
Plans and Specifications		X
Soils Report		X
Local Building Code Compliance	X	
Date of Permits and Date of Occupancy of Each Building	X	
Building (Mechanical)		X
Building (Electric)		X
Building (Fire)	X	
Building (Other)	X	
Owner's Repair List and Cost Breakdown		X
Current HUD REAC Inspection Report		X
Current Fire Department Inspection Report	X	
Other: Fire Equipment Testing Contractor	X	

The scope of services included reviews of construction and maintenance documents, site survey plans, and legal descriptions, if they were made available to Tetra Tech at the time of our site visit. These documents included:

- A copy of the K-Tags of the October 29, 2018, Iowa State Fire Marshall Department of Health and Human Services Life Safety Code Survey.

- A copy of the December 1, 2018, Iowa Department of Inspections and Appeals license No. 770631 indicating the facility is licensed for 68 beds.
- Site Evacuation Maps.
- A copy of the quarterly August 8, 2019, fire system inspection reports by Ahern (wet sprinkler system and kitchen range hood suppression system).
- A copy of the July 16, 2019, fire system inspection reports by Protex Central (fire alarm, smoke detectors, and life safety system).
- A copy of the annual December 12, 2018, generator inspection and load bank test report conducted by Cummins Central Power.

1. B. Units Inspected

Mr. Andrew Kandray, a Tetra Tech representative, conducted the site visit on November 12, 2019, to complete a field assessment, which consisted of visual observations of the physical condition and maintenance of the property. Mr. Kandray visually observed the building envelope, listed mechanical systems, building interiors, grounds, and pavement. Mr. Kandray inspected 10 of the 32 resident rooms, which appear to be representative of site conditions. Additional resident rooms were observed from the common corridors. Mr. Calvin Goodman, Maintenance Director, accompanied Mr. Kandray during the assessment. Photographic Documentation, a Site Location Map, and a Site Layout Map are included in Section 14. Resumes of Tetra Tech professionals involved in this report are included in Section 15. The table below summarizes the resident rooms that were inspected.

Total resident rooms in project: 32

Location	Inspected
Unit/Room Numbers Observed	106, 110, 111, 210, 202, 204, 207, 210, 311, and 314

Total Resident Rooms Inspected: 10

Total Resident Rooms Not Inspected: 22

1. C. Code Compliance Requirements

The inspection did not reveal any features of code non-compliance. Special engineering reports are not recommended.

Tetra Tech reviewed copy of the K-Tags of the October 29, 2018, Iowa State Fire Marshall Department of Health and Human Services Life Safety Code Survey. Two K-tag violations were noted and were cleared without the need of re-inspection on November 4, 2018. The facility

received a letter dated December 10, 2108 from the Iowa Department of Inspections & Appeals stating the license application has been approved and the facility's renewed license was issued on December 1, 2018

Tetra Tech reviewed a copy of the quarterly August 8, 2019, fire system inspection reports by Ahern (wet sprinkler system and kitchen range hood suppression system) and a copy of the July 16, 2019, fire system inspection reports by Protex Central (fire alarm, smoke detectors, and life safety system). There were no indications of malfunctioning equipment.

Tetra Tech contacted the Building Division of Polk County Iowa (515-286-3352) to ascertain if there were outstanding building code violations associated with the property. Tetra Tech did not receive a response prior to submittal of this report. Pertinent information will be forwarded as an addendum.

Tetra Tech submitted a records request to the City of Polk City Fire Department firedepartment@polkcityfd.com to ascertain if any outstanding fire code violations have occurred in association with the property. Tetra Tech did not receive a response prior to submittal of this report. Pertinent information will be forwarded as an addendum.

Tetra Tech inspected the facility for compliance with requirements of the *Fair Housing Accessibility Guidelines* (FHAG) for multi-family housing built for first occupancy after March 13, 1991. The building received a certificate of occupancy in 1976 and is not subject to the FHAG and the *Question and Answer Supplement to the Guidelines* issued in 1994.

SECTION 2
PROPERTY CONDITIONS

2. A. General Description

The property is located at 1002 West Washington Avenue, Polk City, Iowa on an approximate 3.4-acre tract of land. The property is improved with one approximate 19,765-square foot, single-story building constructed in 1976. The facility is licensed for 68 skilled nursing facility beds that are 84 percent occupied. The property is zoned as R-1 (Singe Family Detached Residential District). The facility's compliance with its zoning status was confirmed with the City of Polk City Zoning Department.

The building is a single-story wood frame structure with a pitched wood truss and plywood decking roof system finished with 30-year architectural shingles. Aluminum gutters and downspouts are present around the entire roofline perimeter. The exterior walls of the building are finished with a combination of brick veneer and aluminum siding on the building gables. Aluminum covered fascia and soffits are present around the building roofline. The foundation is a concrete slab on grade with reinforced concrete footers. The surrounding area consists of residential and agricultural properties.

The following table summarizes the overall general information for the property.

Property Name:	Polk City Nursing & Rehabilitation Center
Street Address:	1002 West Washington Avenue
City, County, State:	Polk City, Polk County, Iowa
Primary Use:	Skilled Nursing Facility
Year Built and Age:	1976 & 49 years
Date of Permits and/or Date of Occupancy:	1976
Ownership Entity:	LTC - Jonesboro Inc.
Duration of Current Property Mgmt.:	2004
Reported Occupancy:	SNF - 84%;
Reported Number of Licensed Beds:	SNF - 68 beds
Number of Operating Beds:	SNF - 68 beds
Number of Buildings:	One SNF building; one garage
Number of Stories:	One
Cellar/Basement/Crawl Space:	None
Total Building Area (Square Feet):	19,765
Reported Gross Site Area (Square Feet):	148,104
No. of Reported On-Site Parking Spaces:	48, including two handicap parking spaces
Date of Site Visit:	November 12, 2019

Survey Conducted By:	Andrew Kandray
Accompanied/Escorted By:	Calvin Goodman
Weather:	19°F – Sunny

Based on our field observations, interviews, and document reviews, it is Tetra Tech's opinion that the property is in overall good condition and has been satisfactorily maintained. Section 5 includes the cost estimates for Critical Repair items and Section 6 includes the cost estimates for the Non-Critical Repair items. The Total Repair Cost estimate is provided in Section 7. The owner's proposed repair list is included in Section 8. The proposed replacement and cost schedule for Capital Items is included in Section 10, as the Reserve Table. The Reserve Table also includes the Expected Life (EL), Reflective Age (RA), and the Remaining Life (RL) information. The proposed replacement and cost schedule for Major Movable Equipment (MME) is included in Section 11.

Tetra Tech did not observe obvious significant deferred maintenance items. Sound preventive maintenance appeared to be exercised. No significant deferred maintenance items were reported.

2. B. Pertinent Off-Site Conditions

The surrounding area consists primarily of residential and agricultural properties. The property is bound to the north by undeveloped land use or agricultural purposes followed by private residences, to the east and west by private residences, and to the south by West Washington Avenue followed by residences and Roosevelt Street.

2. C. Site Construction

2. C. 1. Soils Conditions

Information regarding soil conditions was not provided for review.

2. C. 2. Drainage/ Topography

Storm water flows via sheet flow from the asphalt paved areas of the property to the northeast to storm drains along W. Washington Avenue. A few storm drains were noted in the west courtyard and patio. The storm drains discharge to the local municipal storm sewer. Storm water is also captured off the roof via gutters and downspout that discharge to ground surface. No evidence of erosion or chronically standing water was observed at the time of the site visit. Generally, the drainage appurtenances appeared to be in good condition. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

No abnormal features such as settlement areas, ground fractures, or areas of ponding water were identified. The topography across the property slopes from the north to the south-southwest. The site appears to have been slightly altered during site development for the building pad and parking and drive areas. No items were observed that would indicate that any site alterations negatively impacted the property.

2. C. 3. Parking/ Surfaced Area

Asphalt parking is provided along the north and south sides of the property. Approximately 48 parking spaces are marked in these areas. Concrete curb and gutters are located along the majority of the asphalt parking area and were in good condition.

Two standard handicap parking space are located in the southern parking lot near the main entrance. There were no van accessible spaces at the facility. The facility will require the addition of a van accessible space with proper UFAS compliant signage and an access aisle. The two current standard handicap spaces and signage were labeled in accordance with Uniform Federal Accessibility Standards (UFAS) requirements.

Replacement reserves for an overlay, seal coat, and striping for the parking lots have been included over the 15-year replacement reserve analysis period.

The property is accessible by two points of ingress/egress from West Washington Avenue to the south. The lobby entrance is located on the south side of the building and is accessible from the parking lot, driveway, and a portico. The property appeared to be adequately accessible at the time of the site visit.

Concrete landings and sidewalks are located along the south facility exterior, the west central courtyard, and from all exits from the building. The courtyard has concrete flatwork that includes a patio and sidewalks. The concrete flatwork appeared to be in good condition; however, a damaged concrete slabs on the east side of the building was noted and the concrete sidewalk at the end of the north wing had raised slabs that need to be replaced due to trip hazards as a critical repair item. Additional funds to replace the sidewalks and concrete flatwork are not expected over the 15-year replacement reserve analysis period.

Tetra Tech recommends the following work this year:

Recommendation (Critical Repair): Replace two sections of damaged and raised sidewalks (damaged concrete slabs on the east side of the building and concrete sidewalk at the end of the north wing with raised slabs). Estimated cost $5,000.

Recommendation (Critical Repair): Combine one standard parking space and one standard handicapped space in the south visitors lot to create a striped access aisle and install signage compliant with UFAC requirements. Estimated cost $675.

Recommendation (Critical Repair): Install a van accessible handicapped sign in the handicapped space with the 96 inch wide access aisle in the south visitors parking lot. Estimated cost $750.

2. C. 4. Landscaping

Landscaped areas were observed surrounding the property and consist of grass lawns, flower beds, shrubs, and trees. The landscaping components appeared to be in good condition and well maintained. The facility uses an outside firm to maintain the landscaped areas and provides snow removal. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

Pole-mounted and building-mounted high-intensity discharge and incandescent light fixtures are located throughout the perimeter of the property, especially near the parking lots. The fixtures appeared to be in good condition. However, property lighting levels could not be accurately assessed since the assessment was conducted during daylight hours. Based on the number, type, and distribution of fixtures, exterior lighting levels are expected to be adequate. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period; however, periodic replacement of bulbs and fixtures should be expected.

A brick, metal, and granite monument sign is located on the southern side of the property along West Washington Avenue and is used to identify and advertise the property. The sign appeared to be in good condition. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. C. 5. Fencing and Miscellaneous Site Construction

Approximately 100 linear feet of chain link fencing was observed surrounding the central west external courtyard. The fencing was installed in the 1990s. The fence appeared to be in good condition. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period; however, routine maintenance (i.e., minor repairs) should be expected.

2. C. 6. Other

No additional out-of-scope considerations were included in this assessment.

2. D. Building Construction

2. D. 1. Structural System

The building is a single-story wood frame structure with a pitched wood truss and plywood decking roof system. The interior walls are constructed of wood studs with painted sheetrock. The foundation consists of a slab on grade concrete slab on reinforced perimeter and integral footers and foundation walls. The walls and roof of the structure appeared to be in good condition. No visual evidence of stress or deterioration was observed in the interior or exterior. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. D. 2. Building Siding and Exterior Walls

The exterior walls of the building are finished with a combination of brick veneer and aluminum siding on the building gables. The window units are wood double-pane crank out units that are original from 1976. Replacement reserves for window replacement have been allocated over the 15-year replacement reserve analysis period.

2. D. 3. Roof System

The roof consists of a pitched wood truss and plywood decking roof system finished with 30-year architectural shingles that was replaced in 2014. The roof is weather tight. The roof appeared to

be in good condition. The roof has a 20-year warranty. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period for the roof system.

Aluminum covered fascia and soffits are present around the building roofline. Aluminum gutters with downspouts that discharge directly to the ground are present around the building roofline and were in good condition.

2. D. 4. Balconies/Patios

One exterior courtyard is located at central west side of the building. The courtyard is equipped with concrete paved surface, patio chairs and tables. The exterior courtyard is enclosed with a chain-link fence. Concrete flatwork associated with the patios was previously discussed in Section 2.C.4. No replacement reserves are anticipated over the 15-year replacement reserve analysis period.

2. D. 5. Stairs and Guard Rails

The facility is single-story and is not equipped with interior stairs, exterior stair, or guard rails.

2. D. 6. Floor Systems

Tetra Tech was able to make only limited observations of foundations due to the lack of physical accessibility. Based on our observations, the foundation appears to be a reinforced concrete slab-on-grade with perimeter concrete spread footings. The basement foundation consisted of load-bearing cast-in-place concrete walls. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. D. 7. Elevators

The building is single-story and in equipped with an elevator or other vertical transportation.

2. D. 8. Other

No additional out-of-scope considerations were included in this assessment.

2. E. Condition of Building Interiors and Units

2. E. 1. Unit Design and Market Compatibility

The skilled nursing facility has 68 licensed beds and 32 resident rooms. Private and shared ½ bathrooms include a sink and toilet, and do not include a tub or shower stall. The resident room breakdowns are as follows:

Bathroom Type	Resident Rooms				Grand Total
	Private	Semi-Private	Triple Occupancy	4-Bed Ward	
Private Full Bath	6	0	0	0	

Private Half Bath	0	10	10	0	
Shared Full Bath	0	6	0	0	
Shared Half Bath	0	0	0	0	
No In-Room Bath	0	0	0	0	
Total Rooms	**6**	**16**	**10**	**0**	**32**
Total Beds	**6**	**32**	**30**	**0**	**68**
Notes: **Shared bath - A single bathroom shared between two resident rooms**					

The resident rooms are renovated as needed and appeared to be well maintained and in good condition. As the resident rooms become vacant, repair of floor tiles, countertops, and painting (if required) is performed and is considered part of routine maintenance.

2. E. 2. Floor Plan Square Footage

The building square footage (19,765) was verified by the Property Card obtained from the City of Polk City Assessors Office website.

2. E. 3. Interior Fixtures

2. E. 3. a. Appliances

Appliances such as televisions, microwave ovens, and coffee makers are located in common use areas and day rooms throughout the facility. They are itemized in the MME list (see Section 11). Resident rooms are generally not equipped with facility-owned appliances.

2. E. 3. b. Carpeting/ Tile /Flooring

Flooring at the facility consists of ceramic tile, vinyl composition tile (VCT), sheet vinyl, and vinyl wood plank flooring. The ceramic tile is located in the common shower room. Sheet vinyl installed in 2016 is located in the kitchen and older sheet vinyl is located in some resident bathrooms. Vinyl wood plank is located in the dining room and some resident bathrooms. The vinyl plank was installed in 2014. The VCT is in the residential and service corridors, resident rooms, some resident room bathrooms, all service areas, and the remaining common areas of the building and is original to the facility. Replacement reserves for the vinyl flooring are anticipated over the 15-year replacement reserve analysis period.

2. E. 3. c. Windows/ Doors

The interior doors are solid core wood; exterior doors are metal and glass or all metal clad in aluminum frames; and the entrance doors is a single glass in metal frame door. The windows are wood crank out units with double-pane glass. Replacement reserves for interior doors and windows are anticipated over the 15-year replacement reserve analysis period.

2. E. 3. d. Sinks/ Lavatories

There is one common resident shower room, five unisex public/staff restrooms, and 29 resident bathrooms in the facility. The public restrooms inspected contained a sink and lavatory. Replacement reserves for bathroom and restroom fixtures are anticipated over the 15-year replacement reserve analysis period.

2. E. 3. e. Cabinets/ Counter Tops

Facility-owned cabinet and counters are located in the resident rooms. The counter tops were observed in good condition. These items are repaired as part of routine maintenance.

2. E. 3. f. Fixtures

The restroom and bathroom fixtures are discussed in Section 2.E.3.d.

2. E. 3. g. Other

No additional out-of-scope considerations were included in this assessment.

2. E. 4. Walls and Ceilings

The walls are painted drywall throughout the entire facility. The ceilings are finished with painted drywall with non-recessed, 2- and 4-bulb fluorescent lighting throughout the facility. The resident rooms have over-the-bed, wall-mounted, fluorescent light fixtures and recessed, fluorescent lights. Interior painting is performed by in-house staff. Replacement reserves for ceiling tile are anticipated over the 15-year replacement reserve analysis period.

2. E. 5. Moisture, Mold, and Mildew Observations

A limited, visual, non-destructive mold survey was performed for visually obvious mold growth or water damage in readily accessible interior areas. No evidence of water damage, mold, or mildew was observed during the site reconnaissance. According to Mr. Goodman, there have been no water intrusion, moisture, or mold issues.

Mold is naturally occurring and levels of fungi will vary with locations and time. This report was prepared in accordance with generally accepted practices and procedures, the project Scope of Work, and the terms and conditions in the Agreement. Structural areas not assessed as part of the Scope of Work are not covered or commented on in this report. Tetra Tech's comments concerning mold growth do not imply that a complete assessment of mold growth occurred during our performance of the agreed upon Scope of Work. The assessment stated herein is a professional opinion; no other warranty is expressed or implied.

2. E. 6. Common Areas

Common areas consist of a lobby, a beauty salon, two dining rooms, a physical therapy room, and hallways. A kitchen, food preparation pantries, laundry room, , and supply rooms are also located within the building. Private offices and an employee lounge are also located at the facility.

Two reach-in freezers, two reach-in coolers, a gas stove with a burner/grill type cooking surface and overhead vent and wet fire protection system, a leased automatic dishwasher, a convection oven, and a steam table are located in the kitchen. Replacement reserves are anticipated over the 15-year replacement reserve analysis period for some of the kitchen equipment.

During the site visit, Tetra Tech, with facility staff assistance, conducted an inventory of MME including locations, ages, quantities, and portions of the average unit costs. A copy of the list is included in Section 11. Average unit costs were arrived at based on resource catalogues. Tetra Tech provided EL expectations based on the information included in Appendix 5 of HUD's requirements, Tetra Tech's experience with similar facilities, and facility provided unit costs, where applicable. The furnishings and equipment appeared to be in good condition at the time of the site visit.

2. E. 6. a. Laundry Facilities

Two 65-pound, commercial capacity laundry washers and three 75-pound, commercial capacity, natural gas-fired laundry dryers are located in the laundry room. One of the dryers was replaced in 2018 while the remaining two units are over 20 years old. One washer was replaced in 2018 and one unit is older. The units appeared to be in good condition. Replacement reserves are anticipated for one washer and two dryers over the 15-year replacement reserve analysis period.

2. E. 6. b. Recreational Facilities

Recreational facilities were discussed in Section 2.E.6.

The exterior patio area was previously described in Section 2.D.4. Landscaping components, tables, chairs, and umbrellas were observed on the patio, which are included in the MME. Replacement of the concrete components is not expected over the 15-year replacement reserve analysis period.

2. E. 6. c. Hallways

The 8-foot wide corridors are painted drywall on wood stud frame. VCT covers the floors. The ceilings are finished with painted drywall with non-recessed fluorescent lighting. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. E. 6. d. Leasing Office

The administrator's office is located in an area near the main entrance. It is a standard office with carpet and painted drywall.

2. E. 6. e. Storage Areas

Additional property structures observed includes a single detached garage building used for maintenance and general storage. The garage is located near the northeast corner of the property and consists of a wood frame building with T1-11 siding on a concrete slab. The roof is a pitched wood truss and plywood decking with asphalt shingles. The building has a roll-up door and was

in good condition. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. E. 6. f. Commercial Areas

No commercial tenant spaces were observed in this facility.

2. E. 6. g. Other

No additional out-of-scope considerations were included in this assessment.

2. F. Mechanical Systems

2. F. 1. Plumbing/ Sewage Flow

The building water supply lines are copper and the waste lines are cast iron. The plumbing systems appeared to be in good condition. The use of galvanized pipe for plumbing purposes was not reported to exist at the property. Tetra Tech did not observe the presence of galvanized pipe. Tetra Tech's observations were limited to the hot water heaters and areas beneath sinks and in lavatories. Replacement reserves are not anticipated over the term.

The property receives drinking water from Polk City Water Supply that originate from the Des Moines Water Works. According to the 2018 Water Quality Report, the drinking water supplied to the property meets local, state, and federal drinking water standards. A copy of the report is included in Section 16.

2. F. 2. Electrical

Electrical service is fed from a pad-mounted transformer on the north side of the building to the main disconnect panel by underground service connection drop to a 600-ampere (amp) main switch. Subpanels are located in electrical closets in the hallways of each wing and other areas of the building and vary in capacity from approximately 100-amps to 200-amps. The branch wiring was reported to be insulated copper. Mr. Goodman was not aware of any aluminum wiring in the building.

A 350-kilowatt (kW), Onan diesel-fired emergency generator with a 300-gallon diesel aboveground storage tank (AST) is located at the northeastern exterior of the building and provides emergency electricity for the entire building. The unit was replaced in 1994 and appeared to be in good condition and is tested on a weekly basis. Replacement reserves for the generator are not anticipated over the 15-year replacement reserve analysis period.

No items were observed that indicated that the electrical systems are in less than good condition. Mr. Goodman reported that the building has not experienced problems with the electrical systems. In general, electrical distribution systems (i.e., wiring and panels) can be expected to provide useful service over the life of the building. However, routine maintenance will include periodic replacement of relay connects, light switches, breakers, etc. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. F. 3. HVAC

Cooling to the 32 SNF resident rooms and the majority of the common areas within the building is provided by 48 wall mounted and window mounted air Conditioning (AC) units. They were noted to be in good condition, with the majority of then having been replaced. Cooling to dietary is provided by single 5-ton package HVAC unit with R-22 refrigerant that only provides cooling. Some of the AC units and the 5-ton condensing unit will require replacement over the 15-year replacement reserve analysis period.

Heating in common areas of the building is provided by a forced water Hydronic heating system that is powered by two AHT natural gas-fired, 0.4-million British Thermal Units (MMBtu) boilers replaced in 2017. The heat is dispersed by floor mounted baseboard radiators located throughout the resident rooms and common areas. In addition, there are the air handling units on the roof to move heated air. The two boilers units will not require replacement; however, funds for some radiator replacements are anticipated over the 15-year replacement reserve analysis period .

2. F. 4. Fire Sprinkler System

A full wet type automatic sprinkler system is present in all phases of the building. Dry pendant heads are located in the front entry portico. The system is inspected Ahern on a quarterly basis.

The kitchen hood's fire suppression system consists of a wet chemical suppression system that meets Underwriter Laboratories Inc. (UL) 300 compliance.

Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. F. 5. Fire Alarm System

Common area hard-wired smoke detectors, emergency lighting, fire extinguishers, pull boxes, lighted exit signs, and audible and visible alarms are included in the fire protection systems. The resident room as not equipped with smoke detectors. Battery operated smoke detectors with a 10-year lithium battery need to be installed as a critical repair item. The fire protection equipment was not tested during this assessment; however, Tetra Tech checked several of the fire extinguishers and the ones observed had been inspected recently.

The facility is equipped with one nurse call system that is original to the 1976 building. With the exception of replacing bulbs, no additional repairs were reported. Replacement reserves for the original nurse call system is anticipated over the 15-year replacement reserve analysis period.

Tetra Tech recommends the following work this year:

Recommendation (Critical): Install sealed (tamper resistant) battery operated smoke detectors with 10-year lithium batteries in the 32 resident rooms. Estimated Cost $1,700.

2. F. 6. Domestic Hot Water System

Domestic, dietary, and laundry hot water at the facility is provided by two 100-gallon natural gas-fired hot water heaters located in the mechanical room. One hot water heater was replaced in

2018 and one was replaced in 2012. Replacement reserves are anticipated over the 15-year period for one hot water heater.

2. F. 7. Utility Meters

Mid-American Energy provides electric service and natural gas service to the property. The city of Des Moines provides water and sewer service to the property. Mr. Goodman was not aware of abnormal utility problems in recent years. The site utilities appeared to be in good condition. Replacement reserves are not anticipated over the 15-year replacement reserve analysis period.

2. F. 8. Other

No additional out-of-scope considerations were included in this assessment.

2. G Project Eligibility

2. G. 1. Handicap Accessibility Statement of Compliance

Tetra Tech completed a review of the property to assess its general compliance to portions of the UFAS. This standard presents uniform standards for the design, construction, and alteration of buildings so that physically handicapped persons will have ready access to and use of buildings in accordance with the Architectural Barriers Act, 42 U.S.C. 4151-4157. In addition, Tetra Tech reviewed accessibility compliance under FHAG and the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for all site, common, and residential areas. Tetra Tech's goal is to identify accessibility problems and to provide a guide for making the facility more accessible for people with disabilities. The following table summarizes the findings.

UFAS ITEM	YES	NO
Parking		
Required number of standard handicap parking spaces provided	●	
Required number of van-accessible handicap parking spaces provided	●	
Each handicap space has an adjacent access aisle (two spaces may share a common access aisle)		●
Handicap parking space width – 96-inch minimum	●	
Standard handicap access aisle width – 60-inch minimum	●	
Van-accessible handicap access aisle width – 96-inch minimum		●
Labeled according to UFAS (handicap signage cannot be obscured by vehicle)	●	
Accessible Route/Site		
The site has accessible route(s) to the bus stop, parking, public streets, and all buildings on site	●	

UFAS ITEM	YES	NO
One-bed Rooms		
Bedside clearance (bed to wall) - 36 inches or greater	●	
Footboard clearance (footboard to wall) - 42 inches or greater	●	
Door width – 32 inches or greater	●	
Door hardware complies with UFAS requirements	●	
Two-bed Rooms		
Bedside clearance (bed to wall) - 36 inches or greater	●	
Footboard clearance (footboard to wall) - 42 inches or greater	●	
Bed to bed clearance – 48 inches or greater	●	
Door width – 32 inches or greater	●	
Door hardware complies with UFAS requirements	●	
Three-bed or Four-bed Rooms		
Bedside clearance (bed to wall) - 36 inches or greater		●
Footboard to footboard clearance - 48 inches or greater	●	
Bed to bed clearance – 48 inches or greater	●	
Door width – 32 inches or greater	●	
Door hardware complies with UFAS requirements	●	
In-room Bathrooms		
Door width – 32 inches or greater	●	
Floor clear space – 30” x 60” or greater or turning space provided at entrance	●	
If floor clear space is not 30” x 60”, is floor clear space 30” x 48” for forward or parallel approach to the toilet, lavatory, and shower	●	
Blade or single lever handles provided	●	
Hot water temperature controlled at 110ºF	●	
Grab bars	●	
P-traps insulated	●	
Central Bathing Facilities		

UFAS ITEM	YES	NO
Institutional bathtubs accessible	●	
Showers accessible with seat	●	
Staff Restrooms		
Floor clear space – 30" x 60"	●	
Public Restrooms		
Floor clear space – 30" x 60"	●	
Elevators		
The floor area of the elevator car provides space for wheelchair users to enter the car, maneuver within reach of the controls, and exit from the car	NA	NA
Corridor		
Width – 96" or greater	●	
Staff Work Areas		
Handicapped accessible	●	

Based on the site visit, the facility appears to be in general compliance with accessible parking regulations and appears to be in general compliance with UFAS, FHAG, and ADAAG throughout the site, residential, common, and public access areas of the buildings with the exception of bed clearances and insulated p-traps in the public use restrooms and a few resident rooms.

The bathroom sinks include a combination of lever and orbital type fixtures. At least 50 percent of the fixtures are lever style. As replacement becomes necessary, the orbital type fixtures are replaced with lever style handles. Replacement reserves for the bathroom sink handles are included over the 15-year replacement reserve analysis period.

Handicap exterior door hardware is present on the exterior doors and handrails were present on the concrete access ramps. Staff is present at the entrance 24-hours a day. Based on the site visit, the facility appears to be in general compliance with building accessibility regulations.

Tetra Tech recommends the following work this year:
Recommendation (Critical): Arrange the bed positions to comply with UFAS bed clearances, where possible. These activities can be performed by in-house staff.

Recommendation (Critical): Install insulated p-traps (scald protection) in the five public use bathrooms and resident rooms where it is missing. Estimated Cost $340.

2. G. 2. Substantial Rehabilitation

Substantial rehabilitation includes the replacement of two or more major building components or repairs greater than 15 percent of the replacement cost of the facility. Due to the condition of this facility, substantial rehabilitation is not required.

2. G. 3. Commercial Area

Commercial areas were not identified in the building.

2. G. 4. Historical Value or Requirements

A change in the existing structure is not being contemplated as part of this refinancing; therefore, no historic clearance appears warranted.

2. G. 5. Remaining Useful Life

Based on Tetra Tech's experience with skilled nursing facilities, the useful life of similar facilities is 50 or more years. Based on continued good maintenance practices and successful and timely completion of all repairs, the remaining useful life of the facility is expected to be over 50 years.

2. G. 6. External or Unusual Noise Problems

Exterior noise sources that would adversely affect the facility were not identified at the time of the site visit.

2. G. 7. High Pressure Gas and Liquid Petroleum Transmission Lines

Evidence of high-pressure gas or liquid petroleum transmission lines was not identified at the time of the site visit.

2. G. 8. Smoke Detectors

Hard-wired smoke detectors are present in common areas and corridors. The resident rooms were not equipped with smoke detectors. Battery operated smoke detectors with a 10-year lithium battery needs to be installed as a critical repair item as stated in section 2.F.5. Tetra Tech also reviewed documents from outside testing services and in-house maintenance records that documented that the smoke detectors are tested on a routine basis.

2. G. 9. Compliance with Building Codes

Based on our site inspection, the facility did not reveal any features of code non-compliance.

2. G. 10. Compliance with Seismic Requirements

Based on the review of the Seismic Zone Map of the U.S., Figure 16-2, page 2-37 of the 1994 Uniform Building Code, the subject property is in Zone 0, which is a low risk zone. As such, a Seismic Evaluation report was not requested.

2. G. 11. Compliance with Long Term Care Facilities, Automatic Sprinkler Systems

The facility is equipped with a supervised, automatic sprinkler system. According to the tags on the fire riser, the system meets the requirements of the 1999 edition of the National Fire Protection Association's (NFPA) "Standard for the Installation of Sprinkler Systems" (NFPA 13). No deficiencies were identified on the Sprinkler System Inspection, or the Life Safety Survey.

2. G. 12. As-Built Survey Verification

An as-built survey was not provided to Tetra Tech for review.

2. G. 13. Wood Destroying Organisms

Obvious evidence of damage by termites or other wood destroying organisms was not observed at the time of the site visit. Regular inspections/treatments of the property are made by Ecolab, a licensed pest control company. The Tetra Tech assessor is not a qualified, trained, or certified wood pest assessor.

2. G. 14. Energy Efficiency Statement

The building was constructed under the 1976 Energy Code. At the present time there have been no substantial energy efficient upgrades. As package HVAC systems are replaced, they will be upgraded as package HVAC systems are replaced, they will be upgraded with the most energy efficient units available.

2. G. 15. Compliance with Radon Report

According to a November 2019 radon survey, the results were less than 4.0 picoCuries per liter of air (pCi/L). Based on the results, radon is not considered a concern. A copy of the radon report is included in Section 16.

2. G. 16. Compliance with Fire Safety Requirements

Based on the limited observations, interviews, and review of available documentation, it appears that the facility is in compliance with the Department of Health & Human Services, Centers for Medicare & Medicaid Services, final rule entitled, "Fire Safety Requirements for Certain Health Care Facilities."

According to the HUD PCNA Statement of Work for 232/223(f), "This final rule amended the fire safety standards for Medicare and Medicaid participating hospitals, critical access hospitals, long-term care facilities, intermediate care facilities for individuals with intellectual disabilities, ambulatory surgery centers, hospices which provide inpatient services, religious non-medical health care institutions, and programs of all-inclusive care for the elderly facilities. Further, this final rule adopted the 2012 edition of the NFPA 101, Life Safety Code and all Tentative Interim Amendments issued prior to April 16, 2014. It also adopted the 2012 edition of the NFPA 99, Health Care Facilities Code, and all Tentative Interim Amendments (TIAs) issued prior to April 16, 2014, with some exceptions.

The NFPA 101, 2012 edition of the Life Safety Code (including the TIAs) provides minimum requirements, with due regard to function, for the design, operation and maintenance of buildings and structures for safety to life from fire. Its provisions also aid life safety in similar emergencies.

The NFPA 99, 2012 edition of the Health Care Facilities Code (including the TIAs) provides minimum requirements for health care facilities for the installation, inspection, testing, maintenance, performance, and safe practices for facilities, material, equipment, and appliances, including other hazards associated with the primary hazards."

Confirmation that the facility conforms to the NFPA 99 and 101 (2012 editions) was confirmed during Tetra Tech's site reconnaissance and inspection of the facility's during the October 29, 2018, State Fire Marshall Life Safety Code Survey certification of compliance on November 14, 2018. The facility received a letter dated December 10, 2108 from the Iowa Department of Inspections & Appeals stating the license application has been approved and the facility's renewed license was issued on December 1, 2018.

2. G. 17. Supplemental Comments and Recommendations

No additional out-of-scope considerations were included in this assessment.

SECTION 3
SUMMARY AND CONCLUSIONS

Property Summary					
Construction System	Condition			Recommendations	
	Good	Fair	Poor	Critical	Non-Critical
Landscaping	●				
Parking and Drives	●				
Pedestrian Walks	●			$5,000	
Site Drainage	●				
Exterior Lighting	●				
Signage	●				
Structural Systems	●				
Exterior Finishes	●				
Exterior Doors	●				
Windows	●				
Roofing Systems	●				
Building Interiors	●				
Electrical Systems	●				
Mechanical (HVAC) System	●				
Plumbing Systems	●				
Kitchen/Dining/Laundry Equipment	●				
Nurse Call System	●				
Emergency Generator	●				
Fire Protection System	●			$1,700	
Major Movable Equipment	●				
Disabled Person Access	●			$1,765	
Auxiliary storage buildings	●				
Overall Property-Uninflated	●			**$8,465**	**$0**

SECTION 4
SPECIAL ENGINEERING REPORTS/STUDIES

Tetra Tech did not observe existing conditions that would suggest or necessitate further study, research, testing, or exploratory probing.

SECTION 5
CRITICAL REPAIR LIST

Based on the definition provided in ASTM E 2018-15, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process and HUD requirements, it is Tetra Tech's opinion that the following Critical Repairs are required at this site. The Needs Assessor noted all the critical repairs as specific interior repairs. No general repairs were noted.

SPECIFIC CRITICAL REPAIR LIST				
Description of Condition, Location(s), and Nature of Repair		**Repair Costs**		
		Labor	Material	Total
Specific Interior Repairs				
1	Install 10-year lithium battery operated smoke detectors in the 68 resident rooms.	$ -	$ 1,700	$ 1,700
2	Insulate the p-traps in the 5 employee and public use bathrooms.	$ 150	$ 190	$ 340
	Arrange the bed positions to comply with UFAS bed clearances, where possible. These activities can be performed by in-house staff.	$.	$.	$.
Subtotal Interior Repairs				$ 2,040
Specific Exterior Repairs				
3	Replace two sections of damaged and raised sidewalks (damaged concrete slabs on the east side of the building and concrete sidewalk at the end of the north wing with raised slabs).	$ 3,500	$ 1,500	$ 5,000
4	Combine one standard parking space and one standard handicapped space in the south visitors lot to create a striped access aisle and install signage compliant with UFAC requirements.	$ 500	$ 175	$ 675
5	Install a van accessible handicapped sign in the handicapped space with the 96 inch wide access aisle in the south visitors parking lot.	$ 500	_ $ 150	$ 750
Subtotal Interior Repairs				$ 6,425

NOTE: All repair costs include applicable State and local taxes. Davis Bacon Wage Rates are not applicable.

SECTION 6
NON-CRITICAL REPAIR LIST

Based on the definition provided in ASTM E 2018-15, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process and HUD requirements, it is Tetra Tech's opinion that no Non-Critical Repair needs are required at this site.

SECTION 7
TOTAL REPAIR COST

The total repair cost estimates are summarized below:

TOTAL REPAIR COSTS			
Repair Type	**Labor**	**Material**	**Total**
Total Critical Repair Costs:	$ 4,650	$ 3,715	$ 8,465
Total Non-Critical Repair Costs:	$ -	$ -	$ -
Total Repair Costs:			$ 8,465

NOTE: All repair costs include applicable State and local taxes. Davis Bacon Wage Rates are not applicable.

SECTION 8
OWNER'S PROPOSED WORK WRITE-UP PLAN/REPAIR LIST

The owner did not provide any information regarding proposed repairs or renovations.

SECTION 9
CURRENT HUD REAC INSPECTION REPORT FINDINGS

Since the facility is not currently a HUD-involved facility, it does not have a HUD REAC inspection report.

SECTION 10
CONDITION ASSESSMENTAND PROPOSED REPLACEMENT AND COST SCHEDULE – CAPITAL ITEMS

Replacement Reserves include components or systems that have realized or exceeded their EL during the evaluation period (realization of EL alone does not constitute an immediate cost). Tetra Tech identified various items with such long-term needs. These items are listed in the following table. In Tetra Tech's opinion, these items totaling $334,125 adjusted for inflation should be considered for capital reserves over the 15-year period.

CAPITAL ITEMS
POLK CITY NURSING AND REHABILITATION
POLK CITY, IOWA
103P067025

Tetra Tech, Inc.

Number of Beds: 68

ITEM DESCRIPTION	EXPECTED LIFE	REFLECTIVE AGE	REMAINING LIFE	QUANTITY	UNIT	UNIT COST	TOTAL COST	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
Asphalt Overlay Seal/Stripe	25	19	6	2,333	Sq. Yd.	$20.00	$46,660	$0	$0	$0	$0	$0	$46,660	$0	$0	$0	$0	$0	$0	$0	$0	$0
Asphalt Pavement Seal/Stripe	5	2	3	21,000	Sq. Ft.	$0.28	$5,880	$0	$0	$5,880	$0	$0	$0	$0	$5,880	$0	$0	$0	$0	$5,880	$0	$0
Vinyl Flooring	25	21	4	6,000	Sq. Ft.	$4.00	$24,000	$0	$0	$0	$24,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Windows	30	23	7	32	Each	$950	$30,400	$0	$0	$0	$0	$0	$0	$30,400	$0	$0	$0	$0	$0	$0	$0	$0
Interior Wood Door	40	35	5	32	Each	$700	$22,400	$0	$0	$0	$0	$22,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bathroom and Restroom Fixtures	20	Varies	Varies	35	Each	$400	$14,000	$0	$0	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$0	$0	$0	$0	$0	$0
In-room Sink Fixtures	20	Varies	Varies	32	Each	$200	$6,400	$0	$0	$800	$800	$800	$800	$800	$800	$800	$800	$0	$0	$0	$0	$0
Commercial Grade Laundry Washer	20	14	6	2	Each	$11,500	$23,000	$0	$0	$0	$0	$0	$23,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Commercial Grade Laundry Dryer	20	13	7	2	Each	$5,000	$10,000	$0	$0	$0	$0	$0	$0	$10,000	$0	$0	$0	$0	$0	$0	$0	$0
Reach-in Freezer	20	16	4	1	Each	$5,800	$5,800	$0	$0	$0	$5,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Reach-in Cooler	20	15	5	1	Each	$4,800	$4,800	$0	$0	$0	$0	$4,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Convection Oven	20	15	5	1	Each	$5,800	$5,800	$0	$0	$0	$0	$5,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AC Units (window)	15	Varies	Varies	32	Each	$750	$24,000	$0	$0	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$0	$0	$0	$0	$0	$0	$0
Baseboard Radiator Unit, Hydronic	30	Varies	Varies	60	Each	$450	$27,000	$0	$0	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$0	$0	$0	$0	$0	$0
5-ton Package System HVAC (Cooling Only)	15	10	5	1	Each	$6,500	$6,500	$0	$0	$0	$0	$6,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Nurse Call System	20	17	3	1	Each	$20,000	$20,000	$0	$0	$20,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Hot Water Heaters - Natural Gas Commercial	15	7	8	1	Each	$7,500	$7,500	$0	$0	$0	$0	$0	$0	$0	$7,500	$0	$0	$0	$0	$0	$0	$0
							Total Uninflated Cost	$0	$0	$36,680	$40,600	$50,300	$80,460	$51,200	$24,180	$6,800	$800	$0	$0	$5,880	$0	$0
							Uninflated Cost Per Bed Per Year	$0	$0	$539	$597	$740	$1,183	$753	$356	$100	$12	$0	$0	$86	$0	$0
							Inflation Factor = 2.5% Per Year	100.0%	102.5%	105.1%	107.7%	110.4%	113.1%	116.0%	118.9%	121.8%	124.9%	128.0%	131.2%	134.5%	137.9%	141.3%
							Total Inflated Cost	$0	$0	$38,537	$43,722	$55,522	$91,033	$59,376	$28,743	$8,285	$999	$0	$0	$7,908	$0	$0
							Cumulative Total	$0	$0	$38,537	$82,259	$137,780	$228,814	$288,190	$316,932	$325,218	$326,217	$326,217	$326,217	$334,125	$334,125	$334,125
							Inflated Cost Per Bed Per Year	$0	$0	$567	$643	$816	$1,339	$873	$423	$122	$15	$0	$0	$116	$0	$0

SECTION 11
CONDITION ASSESSMENT AND PROPOSED REPLACEMENT AND COST SCHEDULE – MAJOR MOVABLE EQUIPMENT

During the site reconnaissance, Tetra Tech, with assistance facility staff assistance, obtained a list of Major Movable Equipment including locations, ages, quantities, and portions of the average unit costs. A copy of the list is included in the following table. Average unit costs were arrived at based on resource catalogues or facility provided information. The EL expectations are based on information included in Appendix 5 of HUD's requirements and Tetra Tech's experience with similar facilities. In Tetra Tech's opinion, these items totaling $106,886 adjusted for inflation should be considered for capital reserves over the 15-year period.

MAJOR MOVABLE EQUIPMENT (MME) LIST
POLK CITY NURSING AND REHABILITATION
POLK CITY, IOWA
103P067025

Tetra Tech, Inc.

Number of Beds: 68

ITEM DESCRIPTION	EXPECTED LIFE	REFLECTIVE AGE	REMAINING LIFE	QUANTITY	UNIT COST	TOTAL COST	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
Common Use Furnishings/Finishes																					
Sofa Chair	10	4	6	3	$300	$900	$0	$0	$0	$0	$0	$900	$0	$0	$0	$0	$0	$0	$0	$0	$0
End Table	20	4	16	2	$134	$268	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Table Lamps	10	4	6	1	$100	$100	$0	$0	$0	$0	$0	$100	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wood Bench	10	4	6	1	$270	$270	$0	$0	$0	$0	$0	$270	$0	$0	$0	$0	$0	$0	$0	$0	$0
Piano	30	4	26	1	$2,800	$2,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Conference Room																					
Arm Chairs	20	2	18	10	$208	$2,080	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Folding Chairs	10	1	9	2	$52	$104	$0	$0	$0	$0	$0	$0	$0	$0	$104	$0	$0	$0	$0	$0	$0
Dry Erase Board	10	1	9	2	$150	$300	$0	$0	$0	$0	$0	$0	$0	$0	$300	$0	$0	$0	$0	$0	$0
Dry Erase Board - w/Stand	10	2	8	1	$250	$250	$0	$0	$0	$0	$0	$0	$0	$250	$0	$0	$0	$0	$0	$0	$0
Office Furniture (Includes all offices in facility- Main Office, Administrator, Nursing, Social Worker, Maintenance, Admissions, Etc)																					
Standard Office Desks	20	1	19	10	$594	$5,940	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Printer - Desktop	10	1	9	9	$225	$2,025	$0	$0	$0	$0	$0	$0	$0	$0	$2,025	$0	$0	$0	$0	$0	$0
Time Clock	10	4	6	1	$600	$600	$0	$0	$0	$0	$0	$600	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fax machine	10	4	6	1	$225	$225	$0	$0	$0	$0	$0	$225	$0	$0	$0	$0	$0	$0	$0	$0	$0
Office Equipment																					
Electronic Mail Station with Scale	5	4	1	1	$80	$80	$80	$0	$0	$0	$0	$80	$0	$0	$0	$0	$80	$0	$0	$0	$0
Telephone System	10	3	7	1	$6,500	$6,500	$0	$0	$0	$0	$0	$0	$6,500	$0	$0	$0	$0	$0	$0	$0	$0
Audio Visual Equipment																					
Flat Screen TV - 50 - 58-inch	10	3	7	2	$750	$1,500	$0	$0	$0	$0	$0	$0	$1,500	$0	$0	$0	$0	$0	$0	$0	$0
Flat Screen TV - 32 - 36-inch	10	1	9	1	$280	$280	$0	$0	$0	$0	$0	$0	$0	$0	$280	$0	$0	$0	$0	$0	$0
DVD Players	10	4	6	2	$145	$290	$0	$0	$0	$0	$0	$290	$0	$0	$0	$0	$0	$0	$0	$0	$0
Nintendo Wii	10	1	9	1	$250	$250	$0	$0	$0	$0	$0	$0	$0	$0	$250	$0	$0	$0	$0	$0	$0
Beauty/Barber Shop																					
Styling Chair	20	4	16	1	$508	$508	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Dryer on Wheel Stand	10	4	6	2	$350	$700	$0	$0	$0	$0	$0	$700	$0	$0	$0	$0	$0	$0	$0	$0	$0
Hair Wash Station	15	4	11	1	$289	$289	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$289	$0	$0	$0	$0
Therapy (Physical, Occupational, Speech)																					
Parallel Bar	20	4	16	1	$1,423	$1,423	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Physician Stool (wheeled)	10	3	7	2	$185	$370	$0	$0	$0	$0	$0	$0	$370	$0	$0	$0	$0	$0	$0	$0	$0
Posture Mirror	20	3	17	1	$345	$345	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Mat Platform - Static	15	5	10	1	$698	$698	$0	$0	$0	$0	$0	$0	$0	$0	$0	$698	$0	$0	$0	$0	$0
Therapy Stairs	15	3	12	1	$950	$950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$950	$0	$0	$0
Dumbbell Set	15	4	11	2	$64	$128	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$128	$0	$0	$0	$0
Omnicycle	15	1	14	1	$2,000	$2,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,000	$0
Diathermy/Ultrasound/E-Stem	15	1	14	1	$3,600	$3,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,600	$0
Nurses' Station/Treatment Room/Medical Equipment																					

ITEM DESCRIPTION	EXPECTED LIFE	REFLECTIVE AGE	REMAINING LIFE	QUANTITY	UNIT COST	TOTAL COST	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
Arm Chair	20	1	19	2	$208	$416	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Medical Charting Computer System (fixed or mobile)	10	5	5	2	$850	$1,700	$0	$0	$0	$0	$1,700	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,700
Hospital Cart	10	2	8	6	$1,195	$7,170	$0	$0	$0	$0	$0	$0	$0	$7,170	$0	$0	$0	$0	$0	$0	$0
Swivel Stool with Castors	10	4	6	3	$113	$339	$0	$0	$0	$0	$0	$339	$0	$0	$0	$0	$0	$0	$0	$0	$0
Mobility Aids																					
Rollators (4-wheel walkers)	10	4	6	4	$149	$596	$0	$0	$0	$0	$0	$596	$0	$0	$0	$0	$0	$0	$0	$0	$0
Walkers (folding)	10	3	7	16	$100	$1,600	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0	$0
Wheel Chairs	15	5	10	43	$190	$8,170	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,170	$0	$0	$0	$0	$0
Wheelchair Scale	10	2	8	1	$2,723	$2,723	$0	$0	$0	$0	$0	$0	$0	$2,723	$0	$0	$0	$0	$0	$0	$0
Janitor Closet																					
Mop Bucket with Wringer	5	3	2	3	$68	$204	$0	$204	$0	$0	$0	$0	$204	$0	$0	$0	$0	$204	$0	$0	$0
Mop Buckets	5	2	3	2	$30	$60	$0	$0	$60	$0	$0	$0	$0	$60	$0	$0	$0	$0	$60	$0	$0
Utility Carts	20	4	16	2	$200	$400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Dietary																					
Standard Refrigerator	15	1	14	1	$600	$600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$600	$0
Ice Machine	10	1	9	1	$2,900	$2,900	$0	$0	$0	$0	$0	$0	$0	$0	$2,900	$0	$0	$0	$0	$0	$0
Food Blender	10	1	9	1	$598	$598	$0	$0	$0	$0	$0	$0	$0	$0	$598	$0	$0	$0	$0	$0	$0
Scale	5	2	3	1	$110	$110	$0	$0	$110	$0	$0	$0	$0	$110	$0	$0	$0	$0	$110	$0	$0
Microwave	10	2	8	1	$1,250	$1,250	$0	$0	$0	$0	$0	$0	$0	$1,250	$0	$0	$0	$0	$0	$0	$0
Conveyor Toasters (Commercial)	15	5	10	1	$538	$538	$0	$0	$0	$0	$0	$0	$0	$0	$0	$538	$0	$0	$0	$0	$0
Stainless Steel Work Tables - 4 ft.	20	3	17	1	$325	$325	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Utility Carts	20	4	16	4	$200	$800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Plate Warmer	10	3	7	1	$414	$414	$0	$0	$0	$0	$0	$0	$414	$0	$0	$0	$0	$0	$0	$0	$0
Dietary Closet																					
Pressure Spray Machine (Portable)	10	3	7	1	$800	$800	$0	$0	$0	$0	$0	$0	$800	$0	$0	$0	$0	$0	$0	$0	$0
2-Wheel Hand Truck	10	4	6	1	$125	$125	$0	$0	$0	$0	$0	$125	$0	$0	$0	$0	$0	$0	$0	$0	$0
Mop Bucket with Wringer	5	1	4	1	$68	$68	$0	$0	$0	$68	$0	$0	$0	$0	$68	$0	$0	$0	$0	$68	$0
Mop Buckets	5		5		$30	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Dining Room																					
Dining Tables	20	2	18	14	$425	$5,950	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wooden Chairs	20	2	18	10	$89	$890	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Shop																					
Roller Tool Chest	10	3	7	1	$350	$350	$0	$0	$0	$0	$0	$0	$350	$0	$0	$0	$0	$0	$0	$0	$0
Drills/ Hand Tools	8	2	6	4	$100	$400	$0	$0	$0	$0	$0	$400	$0	$0	$0	$0	$0	$0	$0	$400	$0
Ladder 4'	20	4	16	1	$55	$55	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Ladder 6'	20	4	16	1	$138	$138	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Ladder 8'	20	1	19	1	$160	$160	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Ladder 10'	20	2	18	1	$188	$188	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Residential Grade - Wet Vac	10	1	9	1	$160	$160	$0	$0	$0	$0	$0	$0	$0	$0	$160	$0	$0	$0	$0	$0	$0
Paint Sprayer	10	1	9	1	$625	$625	$0	$0	$0	$0	$0	$0	$0	$0	$625	$0	$0	$0	$0	$0	$0
Wheelbarrow	20	4	16	1	$85	$85	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Pressure Spray Machine	10	4	6	1	$1,125	$1,125	$0	$0	$0	$0	$0	$1,125	$0	$0	$0	$0	$0	$0	$0	$0	$0

ITEM DESCRIPTION	EXPECTED LIFE	REFLECTIVE AGE	REMAINING LIFE	QUANTITY	UNIT COST	TOTAL COST	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
Snow Blower	10	3	7	1	$725	$725	$0	$0	$0	$0	$0	$0	$725	$0	$0	$0	$0	$0	$0	$0	$0
Weed Eater	10	3	7	1	$300	$300	$0	$0	$0	$0	$0	$0	$300	$0	$0	$0	$0	$0	$0	$0	$0
Leaf Blower	10	1	9	1	$300	$300	$0	$0	$0	$0	$0	$0	$0	$0	$300	$0	$0	$0	$0	$0	$0
Housekeeping Store Room																					
Vacuum Cleaner	10	4	6	1	$650	$650	$0	$0	$0	$0	$0	$650	$0	$0	$0	$0	$0	$0	$0	$0	$0
Buffer	10	2	8	2	$800	$1,600	$0	$0	$0	$0	$0	$0	$0	$1,600	$0	$0	$0	$0	$0	$0	$0
Automatic Scrubber	10	3	7	1	$2,498	$2,498	$0	$0	$0	$0	$0	$0	$2,498	$0	$0	$0	$0	$0	$0	$0	$0
Resident Room Furniture																					
Electric Beds	20	4	16	62	$1,300	$80,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Non-electric Beds	25	5	20	4	$582	$2,328	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Mattress	15	5	10	70	$200	$14,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,000	$0	$0	$0	$0	$0
Over Bed Tables	20	3	17	60	$142	$8,520	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Chest of 3 Drawers	20	3	17	61	$600	$36,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Television w/ Wall Mount	10	3	7	4	$300	$1,200	$0	$0	$0	$0	$0	$0	$1,200	$0	$0	$0	$0	$0	$0	$0	$0
Television	10	4	6	42	$200	$8,400	$0	$0	$0	$0	$0	$8,400	$0	$0	$0	$0	$0	$0	$0	$0	$0
Miscellaneous																					
Popcorn Maker	8	3	5	1	$209	$209	$0	$0	$0	$0	$209	$0	$0	$0	$0	$0	$0	$0	$209	$0	$0
TOTAL VALUE OF MME INVENTORY						**$235,735**															

Total Uninflated Cost	$80	$204	$170	$68	$1,909	$14,800	$16,461	$13,163	$7,610	$23,406	$497	$1,154	$379	$6,668	$1,700
Uninflated Cost Per Bed Per Year	$1	$3	$3	$1	$28	$218	$242	$194	$112	$344	$7	$17	$6	$98	$25
Inflation Factor = 2.5% Per Year	100.0%	102.5%	105.1%	107.7%	110.4%	113.1%	116.0%	118.9%	121.8%	124.9%	128.0%	131.2%	134.5%	137.9%	141.3%
Total Inflated Cost	$80	$209	$179	$73	$2,107	$16,745	$19,090	$15,647	$9,272	$29,231	$636	$1,514	$510	$9,192	$2,402
Cumulative Total	$80	$289	$468	$541	$2,648	$19,393	$38,483	$54,129	$63,401	$92,632	$93,268	$94,783	$95,292	$104,484	$106,886
Inflated Cost Per Bed Per Year	$1	$3	$3	$1	$31	$246	$281	$230	$136	$430	$9	$22	$7	$135	$35

SECTION 12
REPLACEMENT COSTS

Based on the R.S. Means Company publication "Square Foot Costs," 2019 Edition, Tetra Tech has estimated the replacement cost of the building and site components at the subject property.

Probable costs to reconstruct the property new, including general contractor and architect fees, is included in the estimate. By considering the total cost to replace the foundation system, roofing system, framework, exterior and interior finished surfaces, and mechanical, electrical, and plumbing systems, the main building cost has been estimated. Additional probable costs have been included for the major pieces of equipment in the kitchen and laundry facilities. The replacement of site components also includes utility services, such as sanitary sewer and water line mains and laterals, natural gas lines, storm sewer infrastructure, electrical supply, and pavement and landscape features.

The total value of the MME inventory for the facility is estimated at $235,735. The replacement cost for the facility building and MME is estimated to be $4,386,385. Estimated time to reconstruct the facility is 18 months.

SECTION 13
OTHER RECOMMENDATIONS

No other recommendations appear warranted at this time.

SECTION 14
PHOTOGRAPHS AND FIGURES

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of two standard handicapped parking spaces in the southern lot near the main entrance, facing south.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 1

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the main entrance, facing north.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the southern building exterior and southern driveway, facing northwest.

TETRA TECH, INC.

Photograph Number 3

Photograph taken by Andy Kandray on November 12, 2019.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the soffit and gables above the main entrance, facing north.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 4

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the facility sign, facing northeast.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the building exterior, facing north.

TETRA TECH, INC.

Photograph Number 6

Photograph taken by Andy Kandray on November 12, 2019.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a raised sidewalk slab on the western sidewalk, facing north.

TETRA TECH, INC.

Photograph Number 7

Photograph taken by Andy Kandray on November 12, 2019.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a damaged concrete sidewalk slab by the western end of the building, facing north.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the external patio on the northwest corner of the building, facing east.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of residential properties to the north, facing north.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of vacant lots and residential properties to the northeast, facing northeast.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the concrete patio in the northwestern external courtyard, facing east.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the western building exterior, facing southeast.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 13

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of residential properties to the east, facing east.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the siding and soffit on the building gables, facing southeast.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of raised sidewalk slab on the northern end of the building, facing west.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the northern sidewalk, facing east. Most of the slabs are raised or sunken and the entire east-west length presents trip hazards that need to be addressed.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the diesel-fired emergency generator with a belly diesel aboveground storage tank located on the eastern side of the parking lot by the eastern parking lot, facing south.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the pad-mounted transformer located just south of the emergency generator, facing west. The transformer had a tag indicating “no PCBs.”

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the northeastern building exterior, facing southwest.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 20

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the eastern parking lot, facing east.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the eastern parking lot, facing south.

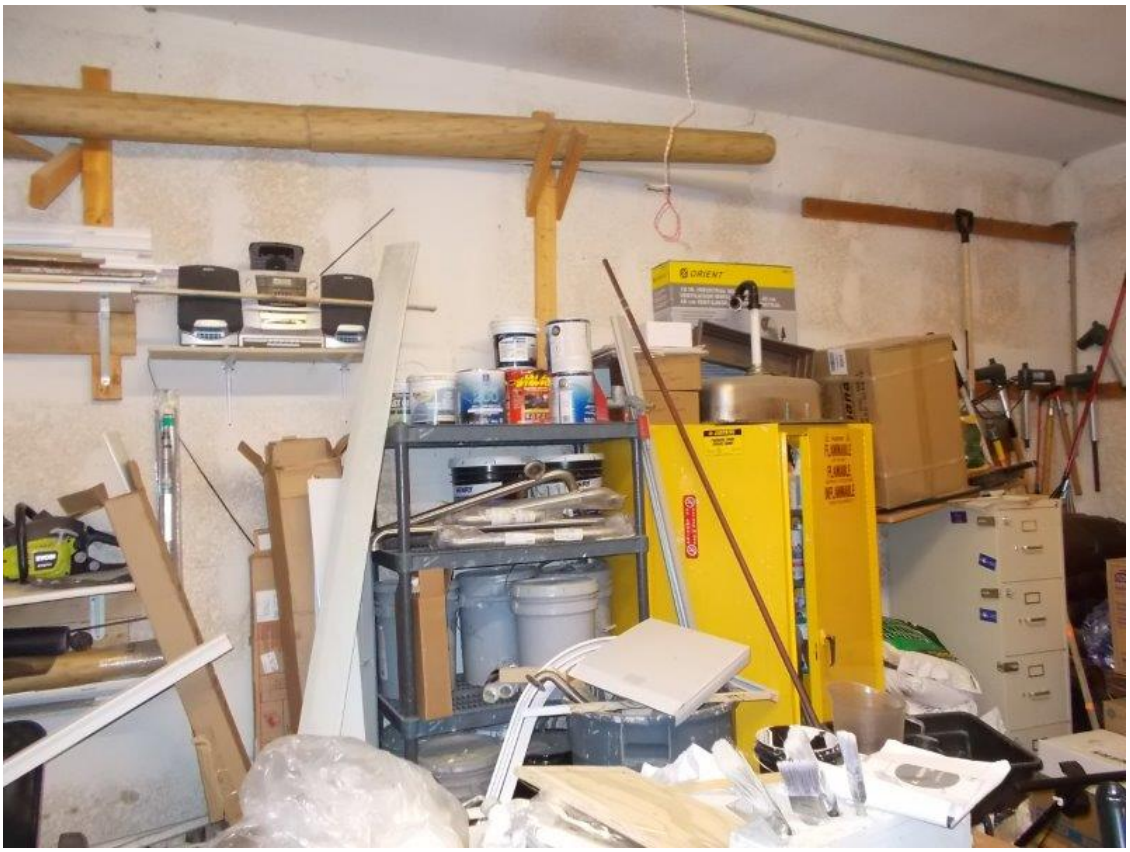
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the garage used as the maintenance shop and for storage, facing north.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of two trash dumpsters beside the garage at the northeast corner of the eastern parking lot, facing north.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of the interior of the maintenance shop.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the electric heater in the garage.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of residential properties to the east, facing east.

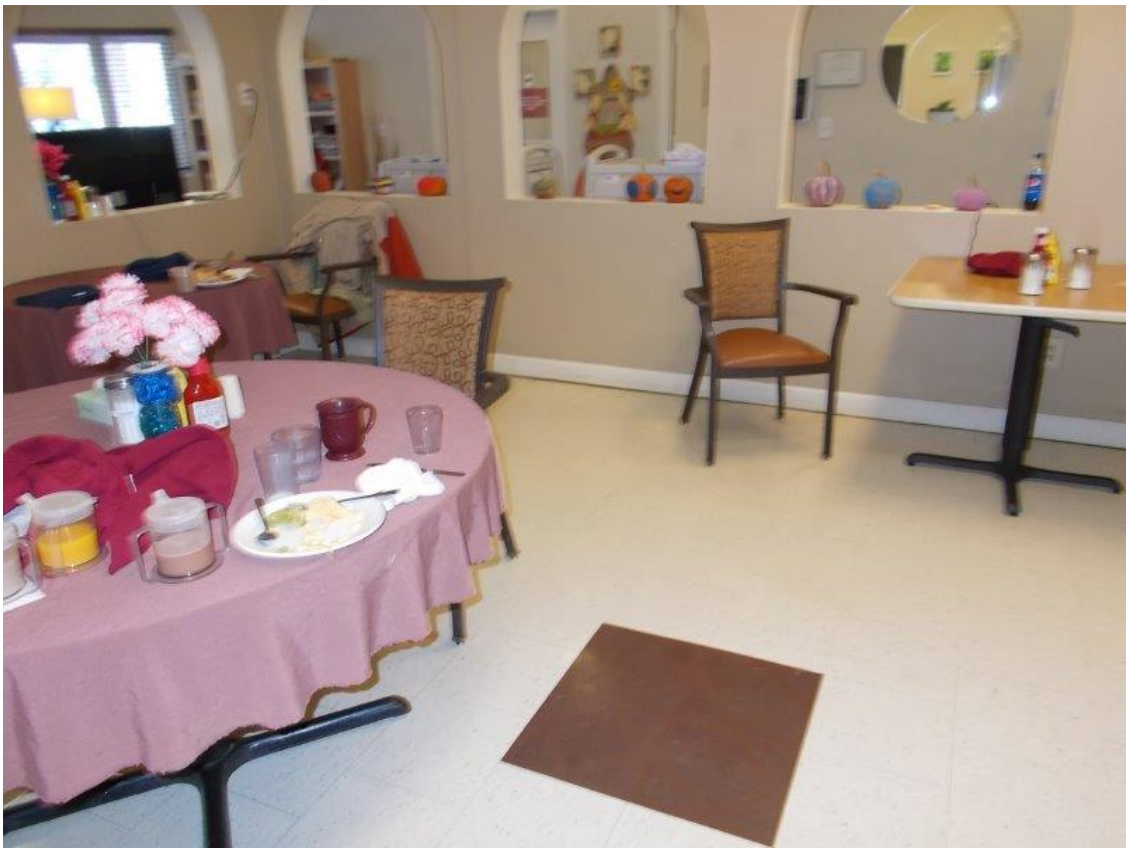
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the eastern exterior of the building, facing west.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the southern exterior of the building, facing northwest.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of the lobby, also used as a dining room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the dining room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a single occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of sink and vanity in a single occupancy resident room.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 33

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the private bathroom in a single occupancy resident room.

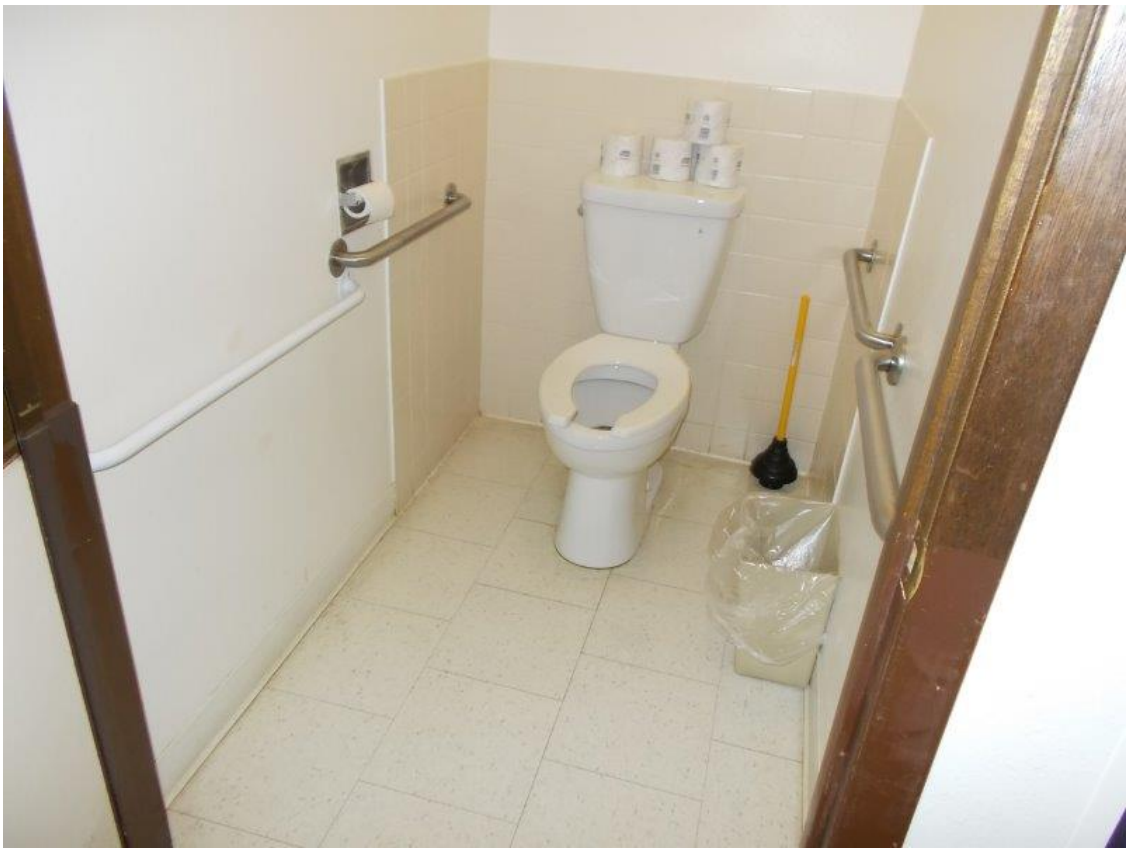
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a double occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a double occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of a private bathroom in a double occupancy resident room.

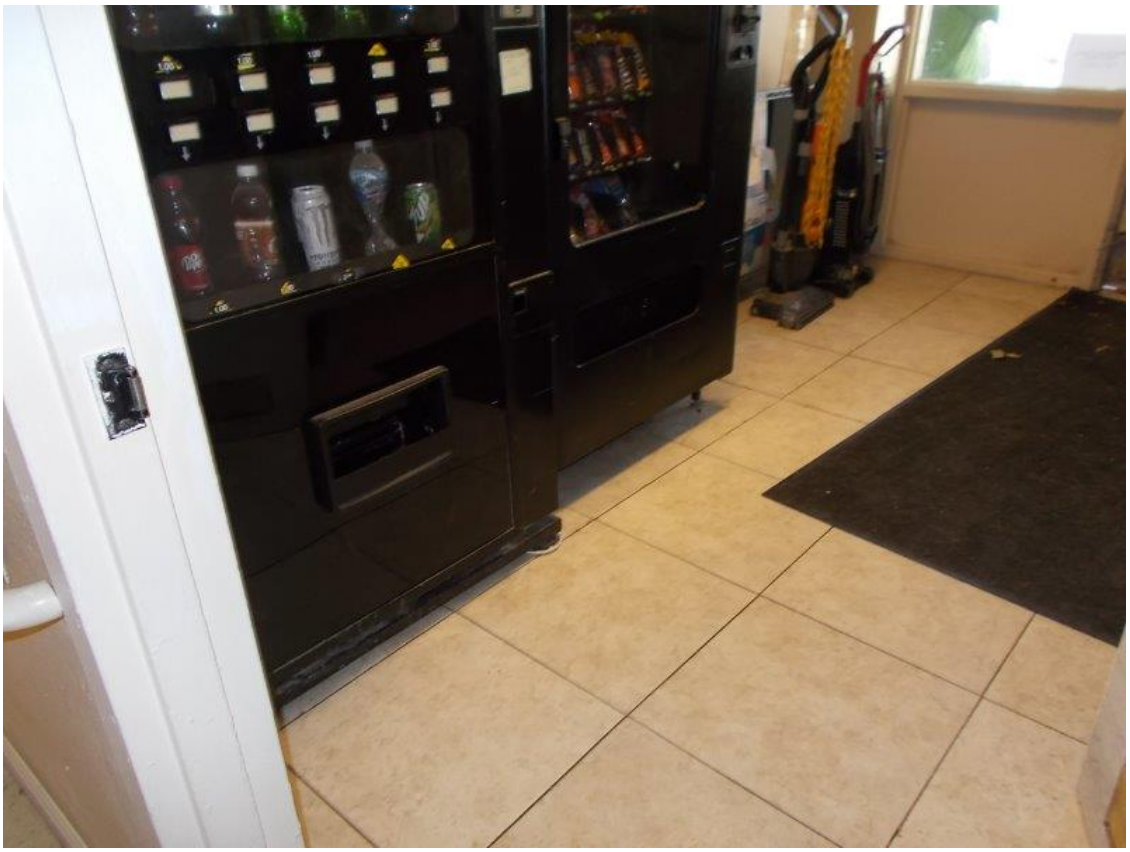
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a sink and vanity in a double occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a hydronic heating system baseboard heater at the end of a hallway.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of the vending room.

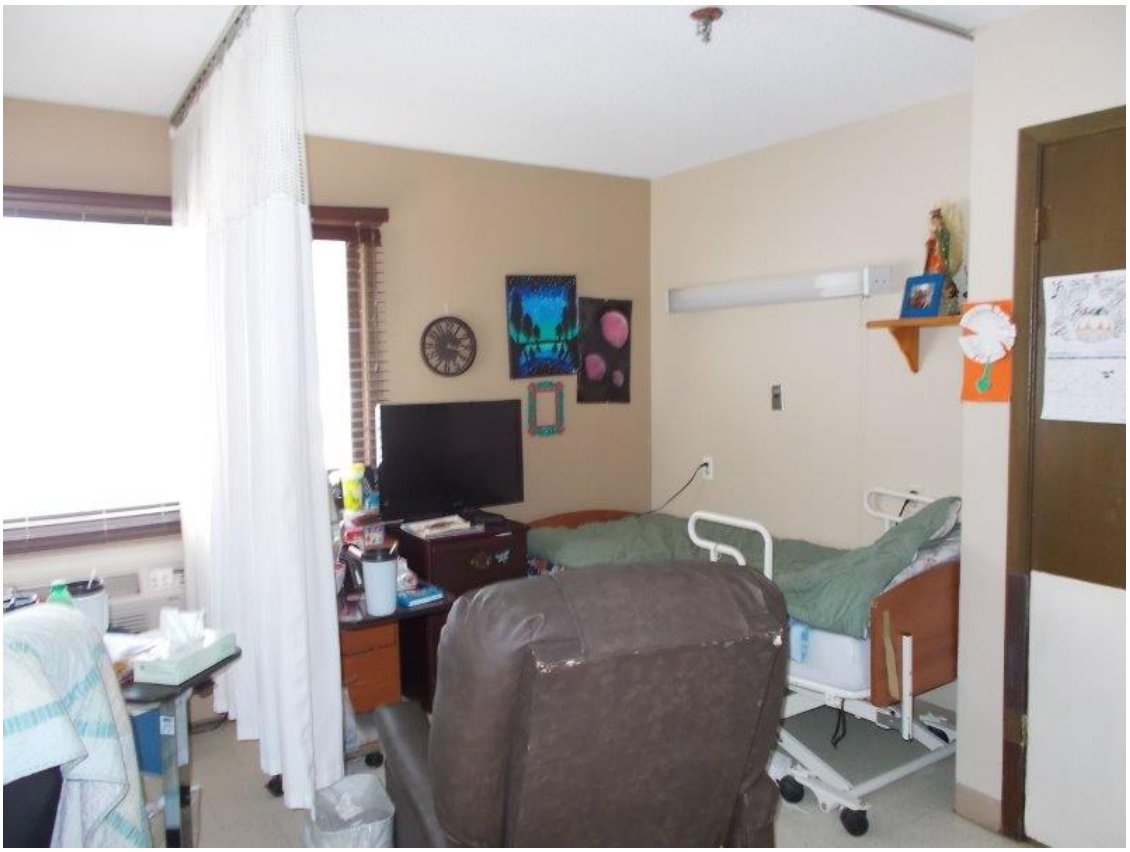
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the nurse call system indicator panel (the three red and white buttons).

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a dining room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

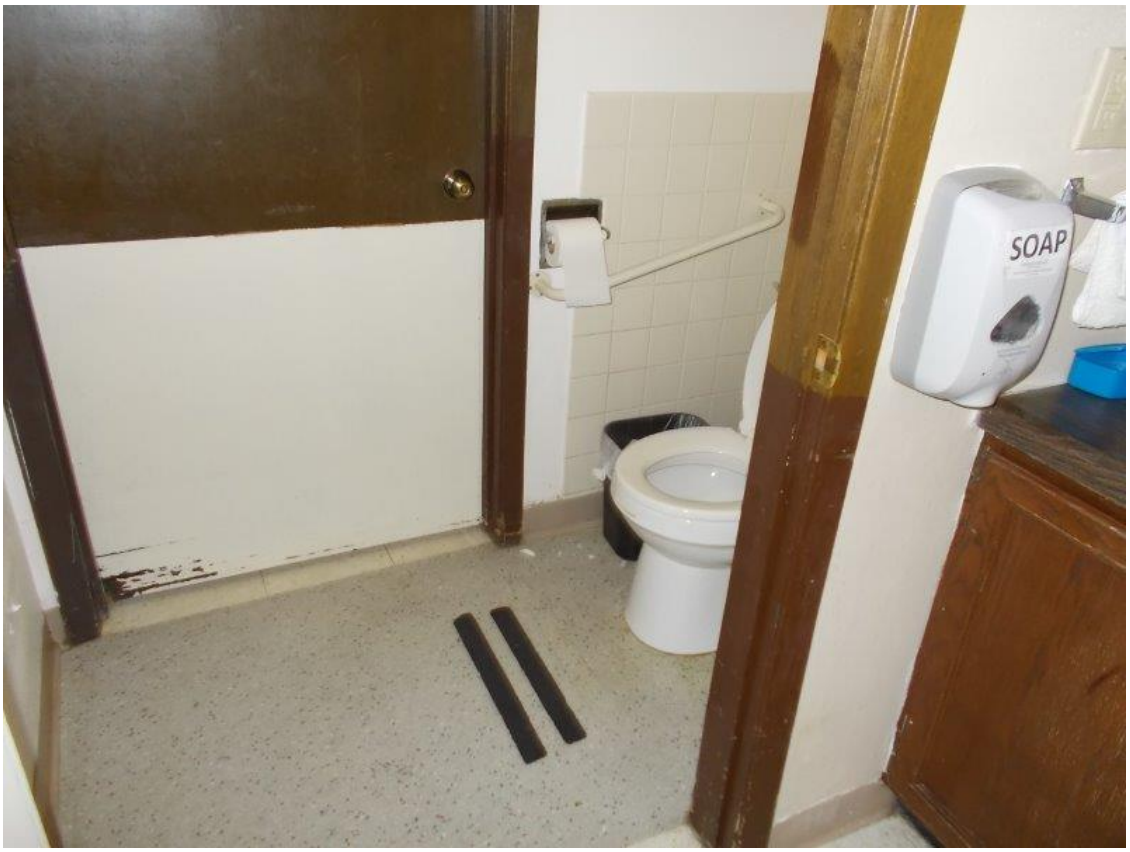


Description:	View of a double occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a double occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of a shared half bathroom between two double occupancy resident rooms.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a typical hallway.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a triple occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a triple occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a triple occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a vanity in a triple occupancy resident room. Note the uninsulated p-trap.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the half bathroom in a triple occupancy resident room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of door handles in a typical resident room. The corridor doors have lever action handles and the bathrooms have round handles.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a common spa/shower room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a common spa/shower room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the beauty salon, which shares the common spa/shower room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the physical therapy room.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 56

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of two commercial capacity washers in the laundry room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of three natural gas fired commercial dryers in the laundry room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

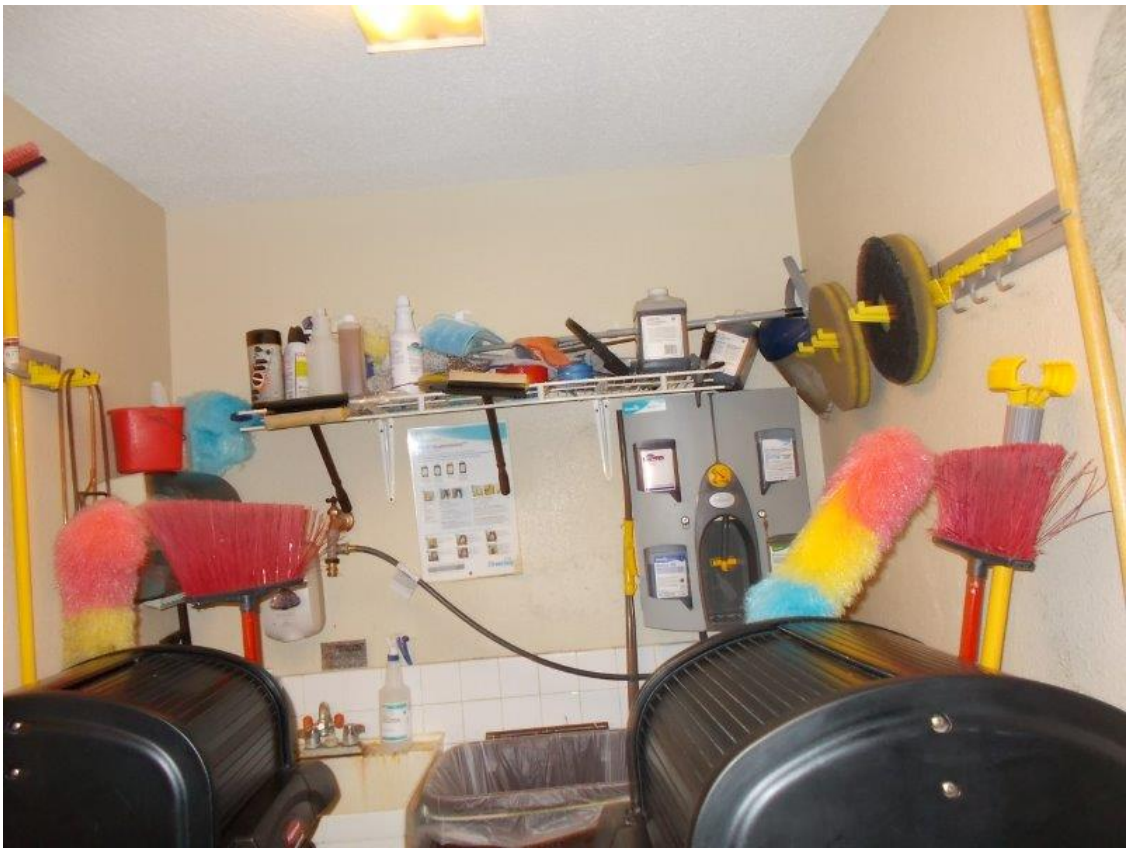
Description:	View of the service hallway.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

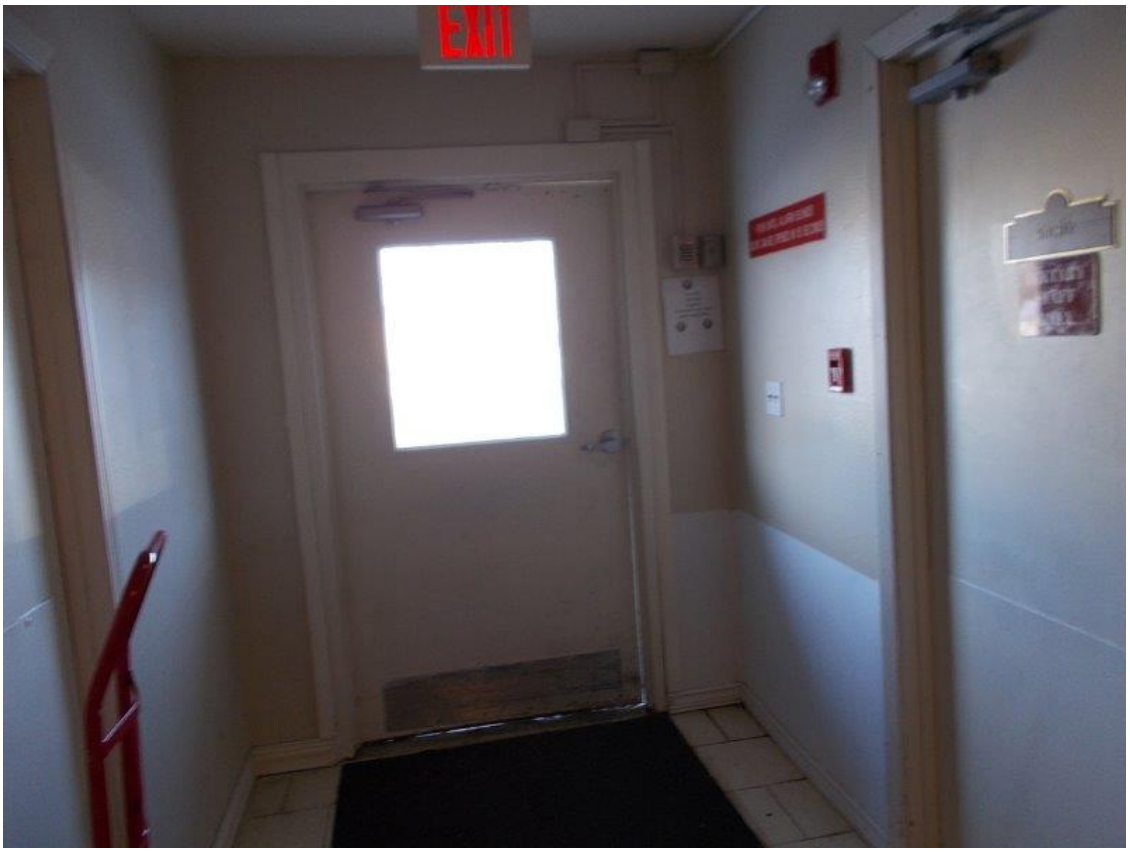
Photograph Number 59

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of a janitorial/housekeeping room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of an exterior door in the service hallway. Note the gaps between the door and the frame.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a natural gas-fired 400,000 British Thermal Unit (BTU) per hour boiler for the hydronic heating system, located in the boiler room.

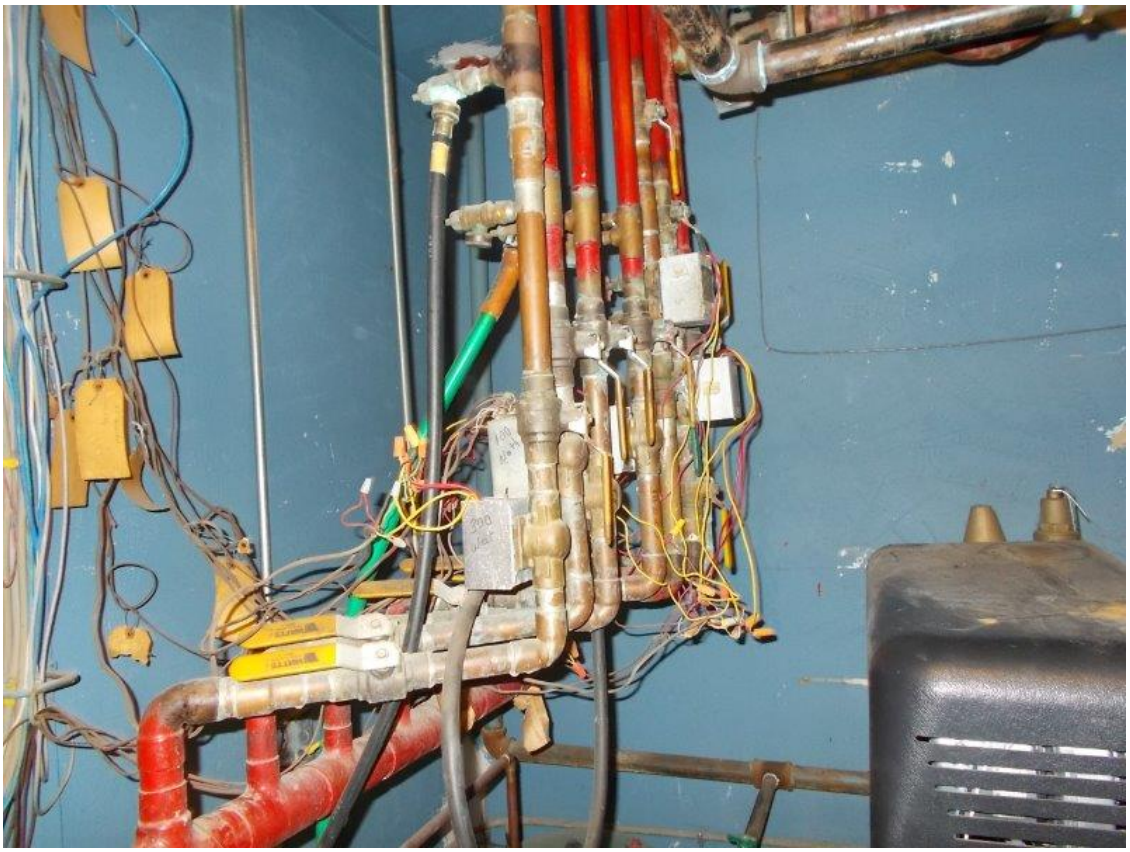
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of a second boiler for the hydronic heating system, also in the boiler room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the water softener system in the boiler room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of piping in the boiler room.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the kitchen finishes.

TETRA TECH, INC.

Photograph taken by Andy Kandray on November 12, 2019.

Photograph Number 66

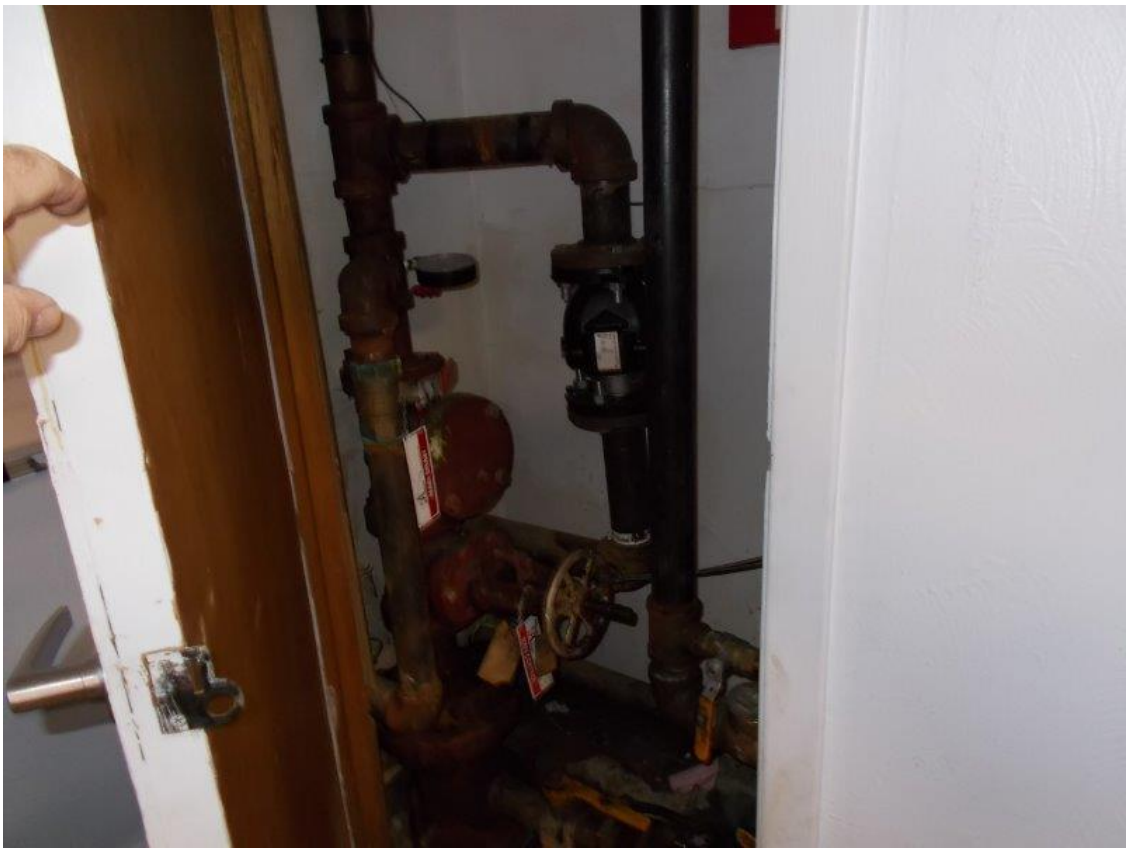
PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the vent hood and fire suppression system in the kitchen.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa

Description:	View of the ANSUL fire suppression supply reservoir in the kitchen.

PHOTOGRAPHIC DOCUMENTATION			
Client:	Polk City	**Project No:**	103P067025
Site Name:	Polk City Nursing and Rehabilitation Center	**Location:**	Polk City, Iowa



Description:	View of the fire riser for the sprinkler system.

SOURCE: MODIFIED FROM USGS, POLK CITY, IA 1972 QUADRANGLE.

POLK CITY NURSING
AND REHABILITATION CENTER
1002 WEST WASHINGTON
POLK CITY, IOWA

FIGURE 1
SITE LOCATION MAP

TETRA TECH

Date Saved: 11/5/2019 User: joel.peters Path: C:\CADD\P\0670\25\PolkCity_IA_1.mxd

Property Boundary

Chain-link Fence

G Emergency Generator with Diesel Belly AST

T Pad-Mounted Transformer

N
W E
S

0 50 100

Feet

SOURCE: MODIFIED FROM ESRI WORLD IMAGERY, 2018.

POLK CITY NURSING
AND REHABILITATION CENTER
1002 WEST WASHINGTON
POLK CITY, IOWA

FIGURE 2
SITE LAYOUT MAP

TETRA TECH

Date Saved: 11/14/2019 User: joel.peters Path: S:\CADD\P0670\25\PolkCity_JA_2.mxd

SECTION 15
RESUMES

TETRA TECH

RONALD E. GROVER
Senior Engineer/Estimator

EXPERIENCE SUMMARY

Mr. Grover is an engineer and construction manager with over 27 years' experience. His areas of expertise include construction draw reports, design/engineering projects, and estimating, Property Condition Assessments (PCAs), Project Capital Needs Assessments (PCNAs); Physical Needs Assessments (PNAs). His projects include cost estimating for lease d Sate and General Services Administration (GSA) buildings, skilled nursing homes, assisted living facilities, hospitals, and independent living facilities. In addition, Mr. Grover has experience in building demolition and process engineering and design.

RELEVANT EXPERIENCE

Bank Branch & Trust (BB&T), Nashville, TN - Performed monthly con

Fannie Mae Corporation, Dallas, Texas - Project Engineer involved in preparing Physical Needs Assessments (PNAs). The PNAs included evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, Fair Housing accessibility, life safety, and code compliance. The PNA reports also included estimates for the physical needs over a 10-year term (adjusted for inflation), immediate repair costs, and replacement reserves. The facilities typically consist of 15 to 50 buildings constructed in multiple phases with 275 to 450 units.

Capital Funding Group, Inc., Baltimore, Maryland. Projects have included over 675 PCNA reports for facilities located throughout the United States. The PCNAs included evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, Fair Housing accessibility, life safety, and code compliance. The PCNA reports also included estimates for the physical needs over 15-year and 40-year terms (adjusted for inflation), initial deposits, annual deposits, immediate critical repair costs, immediate non-critical repair costs, and replacement reserves. These facilities included skilled nursing facilities and assisted living facilities selected for HUD LEAN and MAP approval.

Metro South Medical center, Blue Island, IL - Performed PCA for a 549,742 square foot regional hospital that included a Doctor's Pavilion and multiple supports buildings. Prepared PCA II reports including field data collection, development of remedial cost calculations, analysis of construction documents, and preparation of replacement reserve schedules.

EDUCATION

B.S., Chemical Engineering, Auburn University, Auburn, Alabama. 1992.

AREA OF EXPERTISE

Construction and Demolition Services

Project Capital Needs Assessments (PCNAs)

Property Condition Assessments (PCAs)

Process Design

Building Code and Fire Regulations

Technical reporting/review

REGISTRATIONS/ AFFILIATIONS

Certified Hazardous Materials Manager (CHMM) #3644, 1992

TRAINING/ CERTIFICATIONS

40-hour OSHA HAZWOPER with 8-hour Refreshers

CPR and Standard First Aid

ICS 100, 200, 700, 800.B, 300, and 400

AHERA Asbestos Certification. (Tennessee)

OFFICE

Nashville, TN

YEARS OF EXPERIENCE

27

CONTACT

615-252-4790
ron.grover@tetratech.com

Baptist Memorial Hospital, Ripley, TN - Performed PCA for a 78,228 square foot regional hospital that included an 8,528 square foot Doctor's Office. Prepared PCA, ESA, and Phase II reports including field data collection, development of remedial cost calculations, analysis of construction documents, and preparation of replacement reserve schedules.

Tandem Healthcare Corporation, Pittsburg, PA - Performed PCAs for multiple facilities including assisted living, skilled nursing, and senior care communities. Prepared PCAs including field data collection, development of remedial cost calculations, analysis of lease agreements, cash flow analysis, appraisal review, analysis of construction documents, and preparation of replacement reserve schedules. Performed site visits in preparation for release of funds associated with ongoing construction projects located throughout Ohio.

Life Care Centers of America, Inc., Cleveland, Tennessee - Project Engineer involved in preparing PCAs and PCNAs. The PCNAs included evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, Fair Housing accessibility, life safety, and code compliance. The PCNA reports also included estimates for the physical needs over a 40-year term (adjusted for inflation), initial deposits, annual deposits, immediate critical repair costs, immediate non-critical repair costs, and replacement reserves. These facilities included skilled nursing facilities, assisted living facilities, and independent living facilities selected for HUD LEAN and MAP approval.

AT&T, Atlanta, GA - Performed PCA and participated in the sale and asset transfer of 500,000 square foot Class A office building. The PCA included evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, life safety, and code compliance. The PCA report also included estimates for the physical needs over a 12-year term (adjusted for inflation), immediate critical repair costs, immediate non-critical repair costs, and replacement reserves. The project included follow up services with the new owner to procure bids for immediate critical and immediate non-critical items identified in the PCA.

Osco Treatment Systems (OTS), Nashville, TN - Design, vendor evaluation, and equipment selection of process vessels and chemical storage tanks designed under the following specifications: API 591, 620, 650; ASME; UL 142; NFPA 30. Preparation of Grade B and C cost estimates using "Means Building Construction Cost Data" and the "Richardson Process Plant Construction Estimating Standards." Design, vendor valuation, equipment selection, and cost estimating for remediation projects including air stripping, chemical oxidation and carbon adsorption. Project Manager for the design and procurement of a multi-stage packed bed scrubber system for the removal of NOX fumes and acid gases. Project Manager for the design/procurement/start-up of a central blow down tank collection and pumping system.

Laidlaw Environmental Services, Inc. (LESI), Columbia, SC - Plant design engineering including PFDs, P&IDs, process piping, and pump calculations for batch organic and inorganic plants.

Hospital Corporation of America (HCA), Nashville, TN - Project Manager for the design and installment of steel and fiberglass underground storage tank (UST) systems at hospitals in Tennessee, West Virginia, Kentucky, Florida, New Hampshire, Oklahoma, Utah, and Arizona.

Schmiede Corporation, Tullahoma, TN - Project Manager for the design, procurement and permitting of air pollution control equipment for a major electroplater in Tennessee. The project was performed to meet compliance with new federal MACT standards for chromium emissions.

Environmental Protection Agency (EPA) Region 3, Dover, DE - Performed an engineering evaluation and compliance evaluation of a 375,000-gallon bulk inorganic/organic storage tank failure.

AIG, Memphis, TN - Performed an engineering evaluation and compliance evaluation of 35,000-gallon bulk acid storage tank failure.

Schmiede Corporation, Tullahoma, TN - Project Manager for the design, procurement and permitting of air pollution control equipment for a major electroplater in Tennessee. The project was performed to meet compliance with new federal MACT standards for chromium emissions.

SCIENTIFIC/TECHNICAL PUBLICATIONS

None

ADDITIONAL EXPERIENCE

STATES WITH HUD EXPERIENCE

Alabama, Arkansas, Missouri, Kansas, California, Colorado, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, Minnesota, Missouri, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Washington, West Virginia, Wisconsin, Wyoming

EMPLOYMENT HISTORY

1999 – Present	Chemical Engineer, Tetra Tech Inc., Nashville, Tennessee
1997 -1999	Chemical Engineer, ATC Associates Inc., Nashville, Tennessee
1992 – 1997	Chemical Engineer, ViroGroup, Inc. /Laidlaw, Inc., Nashville, Tennessee

TETRA TECH

Andrew J. Kandray

Senior Project Manager/Chemical Engineer

EXPERIENCE SUMMARY

- Regulatory compliance expert with more than 25 years of relevant RCRA, SPCC, and storm water management experience
- Proven project manager, engineer, and onsite construction manager with over 30 years of environmental experience
- Conducted PCNAs and Phase I ESAs according to HUD guidelines at more than 250 skilled nursing and assisted living facilities in 25 states
- Managed more than 50 contaminated site investigation and remediation projects worth up to $35 million
- Led Environmental Assessments for more than 50 sites throughout the U.S.
- Experienced site assessor, estimator, and technical reviewer

RELEVANT EXPERIENCE

Site Assessments

Phase I and II Environmental Site Assessments, Various Facilities in Various States, 2005-present. Mr. Kandray serves as senior site assessor during performance of Phase I and Phase II environmental site assessments and compliance audits at various facilities and properties located in states throughout the U.S., including Georgia, North Carolina, South Carolina, Florida, Illinois, Montana, and Tennessee. These facilities include commercial office buildings, banks, light industrial facilities, car dealerships, and skilled nursing homes. His duties include preparation of proposals; project management; performance of site inspections; assessment of current and historical environmental information about the sites; and preparation of final reports. The assessments were performed to identify potential environmental liabilities associated with real estate transactions involving the subject properties, and were conducted in accordance with applicable AAI and ASTM standards and guidelines. Many of these environmental assessments were performed in conjunction with property condition assessments (PCAs) for the same property.

Property Condition Assessments, Various Facilities, 2005-present. With Tetra Tech, Mr. Kandray serves as a Project Engineer and site assessor during performance of site visits and preparation of PCAs in accordance with ASTM guidelines. The PCAs include evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, disabled accessibility, life safety, and code compliance. The PCA reports also include estimates for the physical needs over a 10-year term (adjusted for inflation), immediate critical repair costs, immediate non-critical repair costs, and replacement reserves. These PCAs are conducted for lending institutions at facilities in multiple states and include commercial office buildings, commercial restaurants, multiple unit apartment complexes, and skilled nursing facilities.

EDUCATION

- BS Chemical Engineering, University of Pittsburgh

AREA OF EXPERTISE

- Project management and construction management
- HUD LEAN process Project Capital Needs Assessments
- RCRA regulatory compliance
- Environmental Compliance
- Property Condition Assessments
- Remedial Investigations and Feasibility Studies
- Remedial Design and Remedial Action

REGISTRATIONS/ AFFILIATIONS

- Member Society of American Military Engineers
- Member Georgia Brownfields Association

TRAINING/ CERTIFICATIONS

- U.S. EPA Sampling for Hazardous Materials Training, 1986
- RCRA Hazardous Waste Management Training, 2018
- U.S. DOT Hazardous Materials Transportation Training, 2018
- OSHA 40-hour HAZWOPER training, 2003.
- OSHA HAZWOPER refresher training, 2017.

OFFICE

- Duluth, Georgia

YEARS OF EXPERIENCE

- 30 plus years of experience

CONTACT INFORMATION

- andrew.kandray@tetratech.com
- (678) 775-3090

HUD LEAN Project Capital Needs Assessments, Various Facilities, 2005-present. Mr. Kandray serves as a site estimator and project engineer during performance of project capital needs assessments (PCNAs) at multiple skilled nursing facilities in accordance with HUD LEAN guidelines. The PCNAs include evaluations of the site grounds, structural systems, building envelope, interior building components, mechanical systems, Fair Housing accessibility, life safety, and code compliance. The PCNA reports include descriptions of physical components, estimates for the physical needs over a 15- to 40-year term (adjusted for inflation), initial deposits, annual deposits, immediate critical repair costs, immediate non-critical repair costs, and replacement reserves. The PCNAs are often conducted concurrently with Phase I environmental site assessments. Mr. Kandray has extensive experience with estimating construction and repair costs at a wide variety of residential, commercial, and industrial parcels, and has more than 25 years of environmental assessment experience. He meets the HUD requirements for third party assessors for PCNAs and the HUD and ASTM qualifications for a senior environmental professional for environmental site assessments. Mr. Kandray has been the needs assessor during PCNAs conducted for financial lending institutions at more than 250 properties in more than 25 different U.S. states including Arizona, California, Florida, Georgia, Indiana, Louisiana, Montana, North Carolina, Pennsylvania, South Carolina, Tennessee, and Washington.

Superfund Site Assessment, EPA Region 4, Inglis, Florida, 2005 to 2006. With Tetra Tech under the Superfund Technical Assessment and Response Team (START) contract with EPA Region 4, Mr. Kandray served as project manager during a complex site assessment of a mixed residential and commercial Superfund site in Florida where past operations generated extensive arsenic and lead contamination in the soil. The project involved evaluation of historical information; collection of soil, sediment and water samples; using GIS to prepare detailed maps of the 161 property parcels involved in the assessment; estimating contaminated soil removal volumes; development of an internet website to transmit project information to the public; providing technical support to EPA during meetings with residents and Florida regulatory officials; and preparation of documentation and reports for project activities.

Environmental Site Assessments, Various Facilities in Various States, 1995-1997. While with ICF Kaiser Engineers, Mr. Kandray performed a variety of Phase I and Phase II environmental site assessments at various commercial and industrial facilities located in Washington, Iowa, Pennsylvania, Michigan, and Ohio. These facilities included a thirty-one story high-rise building, metals fabrication plants, car dealerships, and current and former manufacturing sites. The assessments were conducted for lenders or law firms in accordance with applicable ASTM standards.

Environmental Inspections, Voluntary Tenant Inspection Program, Private Client, Georgia and North Carolina, 2007 to present. Mr. Kandray serves as senior inspector and local program manager during a nationwide project that involves quarterly environmental inspections of tenant operations at commercial industrial parks in Georgia and North Carolina. These inspections involve assessing tenant operations, activities, and hazardous waste and materials management practices to determine the potential for environmental impacts to their rental spaces. The overall client is the property owner for the industrial parks. The number of tenant spaces inspected by Mr. Kandray and his Atlanta-based inspection team varies from 25 to 164 individual tenants per quarter.

Hazardous Waste Sampling Team Leader, Various Sites, 1985-1987. With JTC Environmental Consultants, Mr. Kandray served as team leader during most multi-media field sampling activities conducted by his employer from 1985 through mid-1987.

Environmental Laboratory Technician, 1984-1987. With JTC Environmental Consultants, Mr. Kandray served as a laboratory technician and chemist in the organic and wet chemistry departments

of his firm's environmental testing laboratory. He also served as assistant health and safety officer and assistant quality assurance officer for laboratory operations.

Regulatory Compliance

Environmental, Health, and Safety Audits, Georgia-Pacific, Multiple sites, 2017 to present. Mr. Kandray participated as a third-party auditor during client conducted environmental, health, and safety audits at three Georgia-Pacific research and manufacturing facilities located in the Southeast U.S. Mr. Kandray served as an audit specialist in one or more environmental areas as part of a team of Georgia-Pacific internal auditors. In this role, he reviewed documentation, planning documents, and other records to assess compliance with applicable hazardous waste and solid waste management; spill prevention, control and countermeasures; and storm water management regulations. The audit process also included inspections of laboratories, manufacturing, storage, and other facility areas and interviews with facility managers and other personnel.

Environmental, Health, and Safety Limited Assessment, Ascend Performance Materials, Pensacola, Florida, 2017. Mr. Kandray served as the lead assessor during an environmental, health, and safety assessment conducted at a specialty chemical manufacturing facility in Florida that was conducted to identify major environmental regulatory issues or areas of concern at the facility. Mr. Kandray was the group leader of a four-person field team and he primarily focused on evaluation of waste management, SPCC, and storm water management compliance at the facility.

CERCLA Site Remedial Investigation and Feasibility Study Planning Document Development, Post and Lumber Site, Quincey, Florida. Mr. Kandray currently serves as project manager during a project for EPA that includes development of a remedial investigation/feasibility study (RI/FS) work plan, sampling and analysis plan, quality assurance plan, and data management plan for a CERCLA site located in Florida. The site was a former CCA wood treating facility that also used pentachlorophenol. Mr. Kandray coordinates with EPA and Florida Department of Environmental Protection (FDEP) project personnel to discuss the specific concerns to be addressed during the RI/FS, leads a team of Tetra Tech technical experts who are preparing the planning documents, and manages the project budget and schedule. The draft RI/FS planning documents have been submitted for EPA and FDEP review and Tetra Tech will address resulting comments and revise the planning documents as needed.

CERCLA Site Feasibility Study (FS) for EPA, Fairfax Street Wood Treaters Site, Jacksonville, FL. 2015 to present. Mr. Kandray was the lead engineer during preparation of a FS prepared in conjunction with a remedial investigation (RI) at a former CCA wood treating site. His responsibilities included identifying the extent of remedial areas, identifying and evaluating potential remedial technologies, evaluating requirements for compliance with ARARs, development and evaluation of treatment alternatives, and performing comparative analysis of alternatives in conformance with EPA CERCLA guidance requirements. As part of the FS process, technologies and treatment alternatives were evaluated to ensure compliance with ARARs and detailed cost estimates for each retained alternative were developed.

CERCLA Site Record of Decision Development Support to EPA, Fairfax Street Wood Treaters Site, Jacksonville, FL. 2016 to present. Mr. Kandray was the project manager and one of the lead authors during development of a Record of Decision (ROD) by EPA for the Fairfax Street Wood Treaters Site in Jacksonville, Florida. Tetra Tech assisted EPA with preparation of the Responsiveness Summary to address public comments on the RI/FS and selected remedy for the site and is currently assisting with preparation of draft and final versions of the ROD for the site.

Focused Feasibility Study for EPA, Former Pesticide Manufacturing Facility, Vineland, NJ. 2016 to present. Mr. Kandray was the lead engineer during preparation of an expedited, focused FS prepared in conjunction with a streamlined RI at a former lead arsenate pesticide manufacturing facility located in New Jersey. The site is currently proposed for the CERCLA NPL, and the streamlined RI and focused FS were prepared to address contamination at residential properties adjacent to the former pesticide manufacturing site. Mr. Kandray's responsibilities included evaluating the extent of remediation needed on the residential properties, identifying and evaluating potential remedial technologies, assisting EPA with preparation of a list of potential ARARs for remediation of the residential properties, and assembling and evaluating treatment alternatives according to the comparative analysis criteria established in EPA CERCLA RI/FS guidance documents.

CERCLA Site Remedial Investigation and Compliance Support for Greenfield Multistate Trust. Mr. Kandray was the project manager responsible for remedial investigation/ feasibility study work plan development, planning and oversight of interim remedial investigation and interim remedial action activities, treatment system operation/maintenance and optimization, and semi-annual compliance monitoring at a creosote-contaminated National Priority List site in Columbus, Mississippi, formerly owned by Tronox.

RCRA Regulatory Support Services, Delta Air Lines, Inc., Atlanta Georgia, 2004 to present. Mr. Kandray currently provides regulatory support services to Delta Air Lines at their Technical Operations Center (TOC) located at the Atlanta, Georgia airport. These services include hazardous waste management inspections and evaluation of compliance requirements for national waste management operations.

Program Manager, Compliance and Consulting Services, Delta Air Lines, Inc. Since 2008, Mr. Kandray has served as the Tetra Tech program manager for projects with Delta Air Lines. Mr. Kandray continues to coordinate and manage services and support to Delta that include SPCC inspections and plan development, storm water support, solid and hazardous waste compliance services, inspection and auditing, and personnel training. Project sites have included Delta stations at airports throughout the continental U.S. and Alaska.

Capped Landfill Maintenance and Monitoring, Atlanta, Georgia 2008 to present. Mr. Kandray currently serves as program manager for maintenance and monitoring services required at a former Georgia HSRA and current VRP site with a capped landfill containing contaminated waste that is located in the city of Atlanta, Georgia. Services include quarterly engineering inspections of the site, annual groundwater monitoring and compliance reporting.

Hazardous Chemical Waste Management Services, Centers for Disease Control, Atlanta, Georgia, 2004 to 2006. Mr. Kandray served as project manager and senior regulatory specialist during a hazardous waste management services project for the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. This project involved the collection, characterization, packaging, and disposal of hazardous chemical waste and discarded chemicals generated at three CDC facilities located in the Atlanta area.

Process Evaluation for RCRA Facility Investigation, Chemical Plant in West Virginia, 1992. Mr. Kandray served as chemical process engineer during evaluation of a chlor-alkali and organic chemical manufacturing facility in West Virginia. During this project, his duties included evaluation and inspection of raw material, process, and waste management systems, assessment of historic waste generation and management activities, and identification of potential RCRA Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) during a RCRA Facility Investigation at the plant.

Regulatory Support Project for EPA, Office of Solid Waste, 1987-1989. While at Versar, Mr. Kandray served in successive positions as staff engineer, technical supervisor, administrative

coordinator, and principal investigator during a $40 million project for the EPA to provide technical assistance during development of the RCRA Land Disposal Restrictions. His responsibilities included review of data supplied by hazardous waste management facilities in the U.S. to determine the volumes of RCRA hazardous wastes to be affected by the new Land Disposal Restrictions. In addition, the same data was evaluated to determine the amount of alternate treatment capacity available for land-banned wastes. During this project He also assisted in the development of data and EPA background documents used to support the new regulations.

Hazardous Waste Management, Various Sites, 1990-1998. While with ICF Kaiser Engineers, Mr. Kandray prepared sampling plans and waste management plans designed to ensure proper handling, storage, transportation, treatment, and disposal of wastes generated during numerous industrial renovation and remediation projects. The sites included coke and by-product plants, steel plants, chemical plants, and aluminum production and fabrication facilities. His duties included characterization of PCB wastes, RCRA hazardous wastes, and non-hazardous wastes; development of appropriate on-site handling and packaging protocols for wastes; preparation of waste disposal profiles; procurement of contracts with transportation and disposal facilities; and documentation of waste management activities. The wastes managed during these projects included soils, debris, and liquids contaminated with dioxin, PCBs, organic hazardous chemicals, toxic metals, reactives, corrosives, and/or flammables.

Health and Safety Plans, Various Sites and Locations, 1990-1998. While with ICF Kaiser Engineers, Mr. Kandray assisted with preparation of site health and safety plans that detailed the expected hazards, operating procedures, and levels of personal protection for workers at small and large-scale industrial construction, remediation, and decommissioning projects that involved a wide variety of hazards. These health and safety plans were prepared to meet or exceed the applicable OSHA and EPA requirements for construction and environmental projects.

Remedial Design and Remedial Action

OM&M Services, Major Manufacturing Company, Georgia, North Carolina, Kentucky, and Alabama. 2014 to present. Mr. Kandray currently serves as the southeast resource manager during a project to provide operation, maintenance, and monitoring services at eight on-going remedial sites for a fortune 500 manufacturing client in the Southeast U.S. These sites are part of a portfolio of 45 sites throughout the U.S. where Tetra Tech is currently providing OM&M services for this client. Services include operation of active groundwater treatment systems, quarterly, semi-annual, and annual groundwater and surface water monitoring, evaluation of monitoring results, coordination with regulatory agencies, and preparation of semi-annual and annual progress reports.

POL Site Remediation, Dobbins Air Reserve Base, Marietta, Georgia. 2006-2013. Mr. Kandray served as project manager for a project involving remediation of subsurface aviation gasoline contamination resulting from a historical UST release at a fuel storage area on an active U.S. Air Reserve Base in Georgia. The project involved operation and maintenance of a dual phase extraction system to remove subsurface volatile and semi-volatile organic contaminants. The system was operated from April 2004 through December 2008, and was completed in 2013 when a “no further action” designation was approved by the Georgia Environmental Protection Division. As project manager, Mr. Kandray was responsible for monitoring and maintaining the budget and schedule, coordinating activities with Base personnel, reviewing monitoring and performance data and reports, and assisting with evaluations of system performance.

POL Site Investigation and Remediation, Willow Grove Air Reserve Base, Horsham, Pennsylvania, 2007-2014. Mr. Kandray served as a senior engineer and construction manager during an on-going investigation and remediation project at a contaminated POL site at an active Air Reserve

Base in Pennsylvania. The project involved assessment of petroleum contamination using geophysical methods, soil sampling, and groundwater sampling, as well as remediation of contaminated soil and groundwater, including the use of a portable biosparging system that was designed, installed, and operated by Tetra Tech. Mr. Kandray's duties included construction management of field remediation activities, estimating project costs, assisting with design and installation of the biosparging system, monitoring and maintaining the project budget and schedule, assisting with assessment of contaminated areas, and evaluating and reporting on the effectiveness of the soil removal activities and the biosparging system.

Horse Pasture Site Remediation, United States Air Force, Robins AFB, Georgia, 2003 to 2005. With Tetra Tech EM Inc., Mr. Kandray served as on-site construction manager for a major soil remediation project at Robins Air Force Base (Robins AFB), located in Warner Robins, Georgia, under a performance-based contract with the Air Force Center for Environmental Excellence (AFCEE). The project site was located within an active horse pasture and stable facility at Robins AFB and involved removal and disposal of more than 70,000 tons of soil contaminated with volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and heavy metals, and subsequent restoration of the excavation sites. Mr. Kandray's duties during the project included development of work plans and operational plans for soil excavation; review of quantity and cost estimates; supervision of personnel, contractors, and construction activities; determination of sampling requirements, collection of samples, and evaluation of analytical data; report preparation; daily coordination with Robins AFB departments and personnel with an involvement or interest in the work; and coordination with regulatory agencies during on-site visits and inspections. The field work was completed in January 2005 and Mr. Kandray also served as the principle author for the Corrective Action Completion/No Further Action Report that was prepared and submitted to the GA EPD to document and complete closure of the contaminated soil areas.

Decommissioning and Demolition of Old Airport Terminal, Pittsburgh, PA, 1999. Mr. Kandray served as on-site construction manager for ICF Kaiser Engineers (and later for IT Corporation) during environmental remediation and demolition of the former Pittsburgh airport terminal. His activities involved implementation of budgets and schedules as well as contractor oversight during asbestos abatement and demolition activities, and also required continuous, complex interaction with airport authorities because of the proximity of the old terminal to active airport runways.

Total Environmental Remediation Contract (TERC II), Military Base Closure in Utah, 1997-1998. Mr. Kandray served as on-site project manager for ICF Kaiser Engineers during $6 million in remediation and base closure services at a military base in Utah during a project for the U.S. Army Corps of Engineers. ICF Kaiser was the general contractor during these projects and provided engineering, design, and remedial construction services at the base. The project tasks included remediation of PCB-contaminated transformer vaults; an ongoing project to provide operation and maintenance services for an on-site groundwater treatment system; a soil remediation project that involved excavation and disposal of soil contaminated with solvents, metals, and dioxin; and an investigation of a 7,500 foot long canal that was used as a disposal site. Mr. Kandray's responsibilities included development of work plans, budgets, and schedules; participating during negotiations with regulatory agencies; coordination of remedial construction activities; on-site project and construction management; performance of waste characterization for remedial wastes; oversight of waste management activities; providing regulatory support services; and preparation of project reports. Successful performance of these tasks led to the award of several million dollars of continuing environmental work at the base to ICF Kaiser.

Remedial Design, Former Plasticizer Plant, Massachusetts, 1995-1996. While with ICF Kaiser Engineers, Mr. Kandray served as a design engineer during development of technical design specifications for various remedial technologies at a former plasticizer manufacturing facility. In this role, he prepared technical design and bid specifications for soil stabilization, soil neutralization, and PCB soil removal activities, and also assisted with preparation of slurry wall and soil bioslurry reactor specifications. Contaminants of concern included PAHs, PCBs, naphthalene, and metals. The remedial action was performed in accordance with Massachusetts Contingency Plan requirements for redevelopment of old industrial sites.

Remedial Design and Remedial Action, Superfund Site, West Virginia, 1993-1995. Mr. Kandray served as lead environmental design engineer and operable unit manager for ICF Kaiser Engineers during a $7-million remedial design and remedial action project for a Fortune 500 PRP group that involved the decommissioning and demolition of a specialty chemical facility at a Superfund site in West Virginia. The activities associated with this portion of the project included site preparation, PCB remediation, asbestos abatement, tank and vessel decontamination, and demolition. His design engineering duties included preparation of sampling and analysis plans, characterization of wastes, and development of work plans and technical specifications. Specifications were prepared in conformance with U.S. Army Corps of Engineers guidelines and standards, and required the review and approval by the U.S. EPA and West Virginia prior to implementation. As operable unit manager, his duties included bidding support during contractor procurement; schedule development and budget preparation; project management during remediation activities; documentation of remedial action activities; and interfacing with contractors, clients, and regulatory agencies. Following completion of decommissioning and demolition activities, Mr. Kandray also served as project manager during a follow-up $2-million task involving removal and disposal of two million pounds of dioxin-contaminated waste that was stored elsewhere on the site. As a result of the successful completion of these tasks, ICF Kaiser was awarded additional work that involved excavation and disposal of buried drums and contaminated soil, and design and construction of an on-site wastewater treatment plant.

Decommissioning and Demolition Surveys, Various Sites, 1990-1997. While with ICF Kaiser Engineers, Mr. Kandray served as project manager or project engineer during decommissioning and demolition surveys at five coke and by-product plants and a coal tar refinery. The studies involved collection of site-specific information needed to prepare technical bid specifications for remediation of these industrial facilities. His specific responsibilities included collecting waste characterization data; quantifying hazardous and non-hazardous materials; and preparation of a report identifying existing plant conditions, the locations and quantities of each type of waste and salvage material, and initial cost estimates for decommissioning and demolition. The plants included active, idled, and abandoned facilities.

Decommissioning and Demolition Projects, Various Industrial Sites – 1990-1997. Mr. Kandray served as project engineer or project manager for ICF Kaiser Engineers during performance of decommissioning, decontamination, and demolition of a wide variety of active, idled, or closed industrial facilities. These sites included coke and by-product plants, steel facilities, chemical coatings manufacturing plants, specialty chemical plants, metals processing and fabrication plants, and a coal tar refinery. The plants were located in multiple states. The projects ranged in size from less than fifty thousand dollars for decontamination services during modernizations at active plants to tens of millions of dollars for decommissioning and demolition of entire manufacturing sites. During these projects, remedial activities included removal and proper disposal of asbestos, PCBs, RCRA hazardous wastes, waste oils, and non-hazardous demolition debris. His duties included preparation of work plans and specifications; conducting contract negotiations; coordination with plant authorities during on-site work, oversight of contractors; preparation and maintenance of project budgets and schedules; waste

characterization and preparation of waste disposal compliance documentation; and preparation and presentation of project reports.

Soil Bioremediation, Coke and By-Product Plants in Pennsylvania and Ohio, 1990-1992. While with ICF Kaiser Engineers, Mr. Kandray acted as project manager during the cleanup of soils contaminated with polynuclear aromatic hydrocarbons (PAHs) using bioremediation techniques at the former sites of three coke and by-product plants located in Pennsylvania and Ohio. As project manager during these bioremediation projects, he was responsible for specifying bioremediation methods; development of scopes of work for the projects; preparing and maintaining budgets and schedules; procuring subcontractor services; and managing subcontractor activities.

PCB Spill Remediation, Former Steel Facility in Pennsylvania, 1990-1992. Mr. Kandray served as project engineer for ICF Kaiser Engineers during the cleanup of two PCB spills at a former steel manufacturing site in Pennsylvania. The spills occurred during third party salvage activities at the site and resulted in the release of more than 900 gallons (combined) of PCB transformer oil. Both sites were remediated to PCB levels that complied with applicable TSCA regulations for spill cleanups. His responsibilities included evaluation of different PCB remediation techniques; preparation of work plans for remediation at each site; documentation of all cleanup activities; preparation of cost estimates and work schedules; and interaction with clients, spill cleanup contractors, and regulatory agencies during the projects.

PCB Transformer Removal, Two Closed Steel Plants in Pennsylvania, 1991. Mr. Kandray served as project engineer for ICF Kaiser Engineers during the removal and disposal of 149 PCB or PCB contaminated transformers and 246 PCB capacitors at two closed steel facilities in Pennsylvania. His duties included assisting with specification development and bidding activities; supervision of removal contractor activities; review of contractor invoices and progress reports, and documentation of all removal activities.

Environmental Liability Study, Various Metals Manufacturing Sites, 1991. Mr. Kandray served as lead project engineer during a four week study of potential environmental problems conducted by ICF Kaiser Engineers at 22 currently operating or former industrial sites at various locations throughout the country. He was responsible for reviewing and evaluating available data for each site and for using this data to prepare descriptions and cost estimates for the best case, worst case, and most likely case remedial scenarios at each site. The results of the study were used to estimate the environmental liability associated with the sale of the 22 industrial sites.

EMPLOYMENT HISTORY

2003-present	Senior Project Manager/Chemical Engineer *Tetra Tech Inc.*, Atlanta, Georgia
2002-2003	Graduate Studies in History, *Georgia Institute of Technology*, Atlanta, Georgia
2000-2002	Graduate Studies in History *West Virginia University*, Morgantown, West Virginia
	Graduate Research Assistant and Graduate Teaching Assistant
2000	Project Engineer *Private Consultant* Maine
1999	Construction manager/engineer *IT Corporation*, Monroeville, Pennsylvania
1990-1999	Project Manager/Construction Manager/Project Engineer *ICF Kaiser Engineers, Inc.*, Pittsburgh, Pennsylvania

1987-1990	Staff Engineer*, Versar, Inc*., Springfield, Virginia
1984-1987	Laboratory Technician and Sampling Crew Leader, *JTC Environmental Consultants*, Rockville, Maryland

SECTION 16
SUPPORTING DOCUMENTATION

2018 WATER QUALITY REPORT
FOR
POLK CITY WATER SUPPLY

This report contains important information regarding the water quality in our water system. The source of our water is surface water and groundwater. Some of the water is purchased. Purchased water comes from Des Moines Water Works. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)		Yes/No	
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	58.00 (58 - 58)	09/30/2018	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	19.00 (19 - 19)	09/30/2018	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	0.00 (ND - 3)	2016	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.534 (0.0398 - 0.572)	2016	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	1.2 (0.30 - 2.18)	09/30/2018	No	Water additive used to control microbes
Fluoride (ppm)	4 (4)	RAA	0.82 (ND - 1.100)	03/31/2018	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
01 - AFTER WTP AND DMWW						
Gross Alpha, inc (pCi/L)	15 (0)	SGL	4.8	01/03/2018	No	Erosion of natural deposits
Sodium (ppm)	N/A (N/A)	SGL	15.3	04/13/2016	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	1.000	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

DEFINITIONS

- Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG) -- The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

- Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

GENERAL INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. POLK CITY WATER SUPPLY is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains its water from the sand and gravel of the Alluvial aquifer. The Alluvial aquifer was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials provide little protection from contamination at the land surface. The Alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the Water Operator at 515-984-6035 .

This water supply obtains some or all of its water from another public water supply. It is a consecutive water supply, where an originating parent supply provides drinking water to one or more downstream supplies.

Original Supply ID	Original Supply Name
IA7727031	Des Moines Water Works

OTHER INFORMATION

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

CONTACT INFORMATION

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact POLK CITY WATER SUPPLY at 515-984-6035.

PURCHASED WATER INFORMATION

Our water system purchases water from the system(s) shown below. Their water quality is as follows:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)		Yes/No	
7727031 - DES MOINES WATER WORKS						
03 - MCMULLEN AFTER TREATMENT						
Sodium (ppm)	N/A (N/A)	SGL	13.2	04/02/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	8.11 (1.78 - 8.11)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
04 - RACCOON, DES MOINES, & GALLERY FLEUR						
Sodium (ppm)	N/A (N/A)	SGL	18.2	04/02/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	8.50 (2.96 - 8.50)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
05 - LP MOON ASR S/EP AFTER TREATMENT						
Gross Alpha, inc (pCi/L)	15 (0)	SGL	1.4	07/16/2018	No	Erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	0.79	07/16/2018	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	32.62	08/06/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	4.99 (2.32 - 4.99)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3 (3)	SGL	0.10	07/16/2018	No	Runoff from herbicide used on row crops
06 - MCMULLEN ASR S/EP						
Fluoride (ppm)	4 (4)	SGL	0.86	07/16/2018	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	21.43	08/06/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	8.24 (2.46 - 8.24)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
07 - SAYLORVILLE S/EP (AFTER TREATMENT)						
Sodium (ppm)	N/A (N/A)	SGL	15.8	02/05/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	1.91 (0.33 - 1.91)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
08 - ARMY POST ASR (AFTER TREATMENT)						

Gross Alpha, inc (pCi/L)	15 (0)	SGL	11.1	10/08/2018	No	Erosion of natural deposits
Combined Radium (pCi/L)	5 (0)	SGL	2.2	10/08/2018	No	Erosion of natural deposits
Uranium (ppb)	30 (0)	SGL	1.9	10/08/2018	No	Erosion of natural deposits.
Gross Alpha, exc (pCi/L)	15 (0)	SGL	9.8	10/08/2018	No	Erosion of natural deposits
Antimony (ppb)	6 (6)	SGL	5.00	10/08/2018	No	Discharge from petroleum refineries; fire retardants; ceramics; electronic; solder
Sodium (ppm)	N/A (N/A)	SGL	28.93	08/13/2018	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	6.60 (2.63 - 6.60)	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Dichloromethane (ppb)	5 (0)	SGL	1.90	10/08/2018	No	Discharge from pharmaceutical and chemical factories
Turbidity (NTU)	N/A (N/A)	TT	Enter highest single measurement and the lowest monthly percentage of samples meeting turbidity limits here.			Soil runoff

CENTRAL IOWA RADON

November 15, 2019

To: Tetra Tech

Attn: Judy Marth

Central Iowa Radon preformed the Radon Testing at the Polk City Nursing and Rehabilitation center located at 1002 West Washington, Polk City. We used Air Chek brand test kits that were exposed in the building for 72 Hours, in this facility we tested 25% of ground contact rooms, and placed additional test kits to for the required 10% Duplicates and 5% Blanks for a total number of 18 tests, However 3 of these tests were missing at time of retrieval. Once the tests were picked they were shipped UPS Next day Air to Air Chek to be analyzed, all of the tests came in below the EPA threshold of 4.0 Pic/L.

Facility	Building	Room	Project ID	Result
POLK CITY	1002 WEST WASHINGTON	112	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	112	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	109	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	109	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	211	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	203	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	303	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	208	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	210	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	202	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	THERAPY	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	315	POLK CITY NURSING	< 0.3

POLK CITY	1002 WEST WASHINGTON	106	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	309	POLK CITY NURSING	< 0.3
POLK CITY	1002 WEST WASHINGTON	309	POLK CITY NURSING	< 0.3

Testing was performed in accordance with all State of Iowa and NRPP Requirements

State License # RNTST09171
NRPP License # 109288 RT

Should you have any questions, I can be reached directly at 515-724-2619.

Thanks

Dan Weber
Central Iowa Radon
Operations Manager

P6049 / COREY DEPENNING

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
9310554	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	112	POLK CITY NURSING	1	< 0.3
9310555	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	112	POLK CITY NURSING	1	< 0.3
9310556	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	109	POLK CITY NURSING	1	< 0.3
9310557	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	109	POLK CITY NURSING	1	< 0.3
9310558	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	211	POLK CITY NURSING	1	< 0.3
9310559	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	203	POLK CITY NURSING	1	< 0.3
9310560	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	303	POLK CITY NURSING	1	< 0.3
9310561	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	208	POLK CITY NURSING	1	< 0.3
9310562	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	210	POLK CITY NURSING	1	< 0.3
9310565	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	202	POLK CITY NURSING	1	< 0.3
9310567	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	THERAPY	POLK CITY NURSING	1	< 0.3
9310568	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	315	POLK CITY NURSING	1	< 0.3
9310569	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	106	POLK CITY NURSING	1	< 0.3
9310570	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	309	POLK CITY NURSING	1	< 0.3
9310571	2019-11-08	1:00 pm	2019-11-11	1:00 pm	70	POLK CITY	1002 WEST WASHINGTON	309	POLK CITY NURSING	1	< 0.3

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

National Radon Proficiency Program

9/6/2019

Daniel Weber
Central Iowa Radon, LLC
700 New York Ave
Des Moines, IA 50313-4149

Residential Measurement Provider

NRPP Certification Number: 109288 RT

NRPP Expiration Date: 08/31/2021

Thank you for your certification/recertification with NRPP. Your certificate and identification card are available for download through the **NRPP Certification/Recertification Portal**.

To access the NRPP Certification/Recertification Portal, you must first SIGN IN:

nrpp.info/my-account/

If this is your first time or first attempt to access this area, you will need to create a password and follow the prompts.

If you have already logged into your account once before, you simply need to choose the option to 'Sign In' You will be required to use the email address that you registered with NRPP via online or paper application.

Once you have accessed the NRPP Certification/Recertification Portal, you will automatically land on the "Welcome" tab. There will be several tabs to the right of the "Welcome" tab; click the "Formal Documents" tab to download your certificate and identification card.

Sincerely,

NRPP Certification Staff

Bureau of Radiological Health
Radon Measurement Specialist Certification

Daniel Weber

Certification #: RNTST09171

Has complied with the requirements and is hereby authorized to perform radon testing pursuant to Iowa code 136B and 641 Iowa Administrative Code Chapter 43.

Approved Testing Methods:
CC-Activated Charcoal Adsorption

Expiration: November 30, 2020

CEU Due Date: November 30, 2021

Radiological Health | Iowa Department of Public Health |Lucas State Office Building | Des Moines, IA 50319

Fold here to mail - Cut here to display

Daniel Weber
8146 RIDGEVIEW DRIVE
DES MOINES, IA 50320

Fold here to mail