FACILITY CONDITION ASSESSMENT & ENERGY AUDIT

prepared for

City of Glendora
116 East Foothill Boulevard
Glendora, California 91741
Michael Sledd

La Fetra Senior Center
333 East Foothill Boulevard
Glendora, California 91741

PREPARED BY:
Bureau Veritas
6021 University Boulevard, Suite 200
Ellicott City, Maryland 21043
800.733.0660
www.us.bureauveritas.com

BV CONTACT:
Mary Venable
Program Manager
800.733.0660 x 7292719
mary.venable@bureauveritas.com

BV PROJECT #:
158691.23R000-030.379

DATE OF REPORT:
February 16, 2024

ON SITE DATE:
December 11, 2023

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1. Executive Summary

Property Overview and Assessment Details

General Information	
Property Type	Senior Center
Main Address	333 East Foothill Boulevard, Glendora, California 91741
Site Developed	1933 Renovated 1996
Site Area	1.17 acres (estimated)
Parking Spaces	Eighteen total spaces all in open lots; six of which are accessible
Building Area	16,780 SF
Number of Stories	One above grade
Outside Occupants / Leased Spaces	None
Date(s) of Visit	December 11, 2023
Management Point of Contact	City of Glendora, Ryan Hacecky, Facilities Maintenance Supervisor 626.672.6306 rhacecky@cityofglendora.org
On-site Point of Contact (POC)	same as above
Assessment and Report Prepared By	Carl Alejandro
Reviewed By	Usama Anwar Technical Report Reviewer For Mary Venable Program Manager mary.venable@bureauveritas.com 800.733.0660 x7292719
AssetCalc Link	Full dataset for this assessment can be found at: https://www.assetcalc.net/

Significant/Systemic Findings and Deficiencies

Historical Summary

The La Fetra Senior Center was originally constructed in 1933. The northern section of the building was added in 1996. The facility is used as a senior citizen center and administrative office.

Architectural

There are two types of roofing at the property. The asphalt shingle roofing appears to be in overall fair condition and adequately maintained. The flat roofing has had a history of leaks around the northwest corner and near the skylights. The leaks are reportedly repaired as they occur. The exterior wood shake wall has areas of paint chipping throughout. Exterior painting is planned for the near reserve term. Also, there is an exterior wooden staircase between the two building sections that has been recommended for removal due to its poor structural integrity.

The interior finishes are replaced on an as needed basis. The point of contact mentioned that the carpet would be replaced in the near future. Ceiling leak damage was observed in the newer building section. Repair of the damage is recommended during the reserve term. Typical lifecycle-based replacements for the interior and exterior finishes are budgeted and anticipated.

Mechanical, Electrical, Plumbing and Fire (MEPF)

The HVAC system for the newer building section consists of rooftop packaged units while the older building section is conditioned by split systems and gas furnaces. The packaged units were replaced in 2016-2018 and appear to be in good condition. The furnace in the attic was inaccessible during the on-site visit, but the point of contact mentioned that it was undersized for the space. Replacement with an appropriately sized unit is recommended at the end of its useful life.

The electrical system is controlled by a main switchboard and distribution panel. Lighting in the building has been upgraded with LED fixtures.

Domestic hot water is supplied by gas storage tank water heaters. The water heater in the kitchen was replaced in 2022 and is in good condition. Typical commercial plumbing fixtures are utilized in the restrooms.

There is a fire alarm system only for the newer building section. The older section uses smoke detectors. Fire suppression consists of fire extinguishers and a kitchen suppression system.

Site

The parking lot asphalt pavement has isolated sections of cracking that are recommended for repair. Mature tree growth was observed above the roof of the older building section. Trimming/removal of the trees is recommended to prevent damage to the roof. Concrete cracking was observed on the stairs to the older building section and may become a trip hazard. Repair is recommended. Site lighting appears to be adequate for the facility's needs.

Recommended Additional Studies

Cracking was observed on the interior ceiling, walls, and basement wall. While there have been no reported issues of building movement, the facility is quite old and may have potential issues. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. A budget allocation based on the area of the building is included in the tables, awaiting the outcomes of the engineering study on the foundation.

Facility Condition Index (FCI)

One of the major goals of the FCA is to calculate each building's Facility Condition Index (FCI), which provides a theoretical objective indication of a building's overall condition. By definition, the FCI is defined as the ratio of the cost of current needs divided by current replacement value (CRV) of the facility. The chart below presents the industry standard ranges and cut-off points.

FCI Ranges and Description	
0 – 5%	In new or well-maintained condition, with little or no visual evidence of wear or deficiencies.
5 – 10%	Subjected to wear but is still in a serviceable and functioning condition.
10 – 30%	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.
30% and above	Has reached the end of its useful or serviceable life. Renewal is now necessary.

The deficiencies and lifecycle needs identified in this assessment provide the basis for a portfolio-wide capital improvement funding strategy. In addition to the current FCI, extended FCI's have been developed to provide owners the intelligence needed to plan and budget for the "keep-up costs" for their facilities. As such the 3-year, 5-year, and 10-year FCI's are calculated by dividing the anticipated needs of those respective time periods by current replacement value. As a final point, the FCI's ultimately provide more value when used to relatively compare facilities across a portfolio instead of being over-analyzed and scrutinized as stand-alone values. The table below summarizes the individual findings for this FCA:

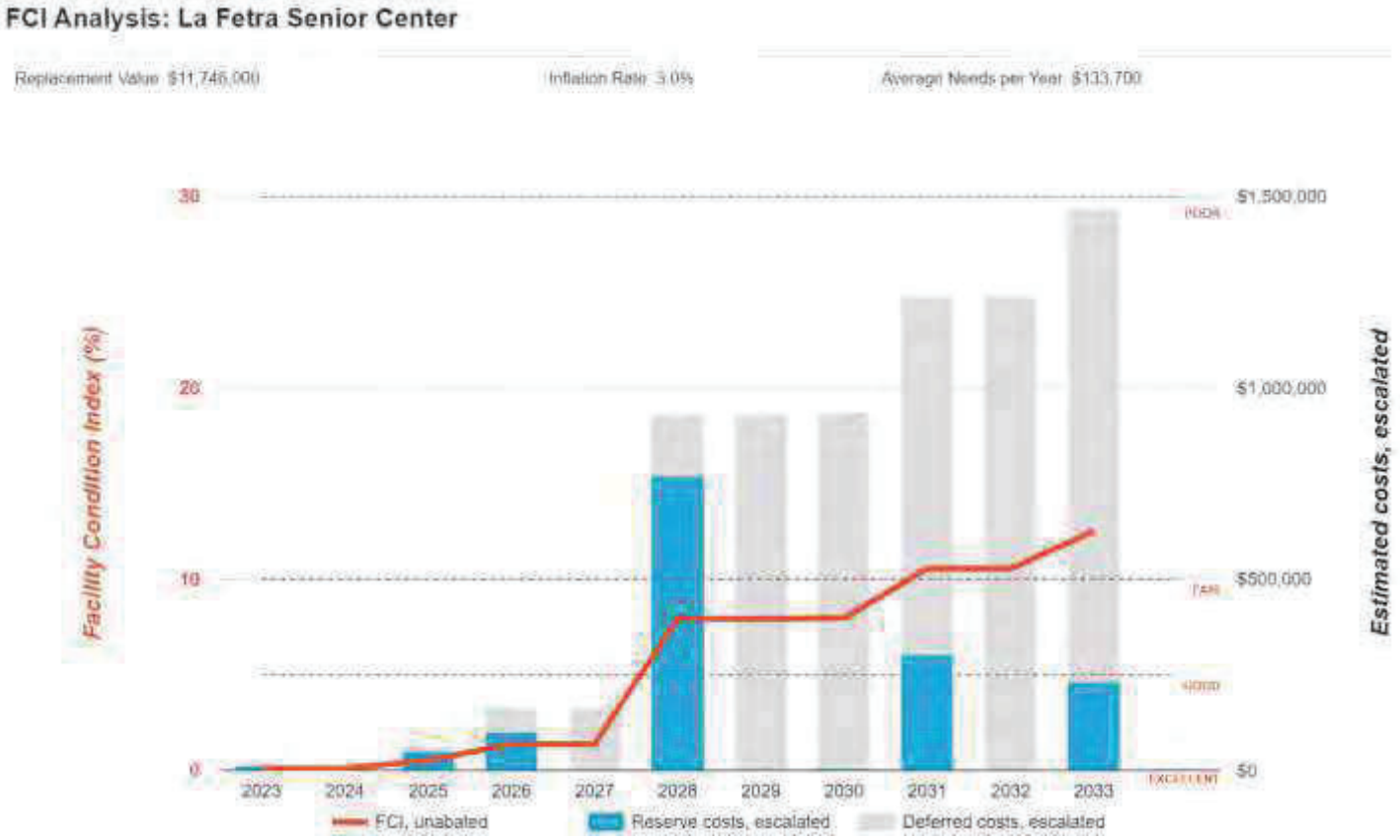
FCI Analysis | La Fetra Senior Center(1933)

Replacement Value	*Total SF*	*Cost/SF*
$ 11,746,000	*16,780*	*$ 700*

	Est Reserve Cost	FCI
Current	$ 11,500	**0.1 %**
3-Year	$ 161,300	1.4 %
5-Year	$ 930,700	7.9 %
10-Year	$ 1,469,800	12.5 %

The vertical bars below represent the year-by-year needs identified for the site. The orange line in the graph below forecasts what would happen to the FCI (left Y axis) over time, assuming zero capital expenditures over the next ten years. The dollar amounts allocated for each year (blue bars) are associated with the values along the right Y axis.

Needs by Year with Unaddressed FCI Over Time



Immediate Needs

Facility/Building	Total Items	Total Cost
La Fetra Senior Center	2	$11,500
Total	**2**	**$11,500**

La Fetra Senior Center

ID	Location	Location Description	UF Code	Description	Condition	Plan Type	Cost
7162775	La Fetra Senior Center	Site	G2080	Landscaping, Mature Trees, Removal/Trimming, Repair	Poor	Performance/Integrity	$2,000
7162772	La Fetra Senior Center	Interior	P2030	Engineering Study, Civil, General Design, Replace	Poor	Performance/Integrity	$9,500
Total (2 items)							**$11,500**

Key Findings

Exterior Walls in Poor condition.

any painted surface
La Fetra Senior Center Building Exterior

Uniformat Code: B2010
Recommendation: **Prep and Paint in 2025**

Priority Score: **89.7**

Plan Type: Performance/Integrity

Cost Estimate: $30,100

**$$$**$

Paint chipping observed throughout - AssetCALC ID: 7162794

Site Stairs and Ramps in Poor condition.

Steps, Concrete (per LF of nosing)
La Fetra Senior Center Older Building Exterior

Uniformat Code: G2030
Recommendation: **Replace in 2025**

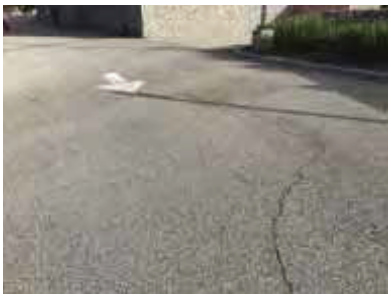
Priority Score: **85.8**

Plan Type: Performance/Integrity

Cost Estimate: $300

**$$**$$

Concrete cracking observed on stairs. Trip hazard. - AssetCALC ID: 7162799



Parking Lots in Poor condition.

Pavement, Asphalt
La Fetra Senior Center Site

Uniformat Code: G2020
Recommendation: **Seal and Stripe in 2025**

Priority Score: **84.8**

Plan Type: Performance/Integrity

Cost Estimate: $4,700

**$$**$$

Isolated locations of asphalt cracking - AssetCALC ID: 7162802

Recommended Follow-up Study: Civil, General Design

Civil, General Design
La Fetra Senior Center Interior

Uniformat Code: P2030
Recommendation: **Replace in 2023**

Priority Score: **81.9**

Plan Type: Performance/Integrity

Cost Estimate: $9,500

**$$**$$

Interior wall and ceiling cracking observed in various areas around the building. Some cracking on basement concrete wall. A study is recommended to see if there may be any potential foundation issues. - AssetCALC ID: 7162772

Landscaping in Poor condition.

Mature Trees, Removal/Trimming
La Fetra Senior Center Site

Uniformat Code: G2080
Recommendation: **Repair in 2023**

Priority Score: **81.9**

Plan Type:
Performance/Integrity

Cost Estimate: $2,000

**$$**$$

Mature tree growth over asphalt roof. Trimming is recommended to prevent damage to roof. - AssetCALC ID: 7162775

Stairs in Poor condition.

Wood, Exterior
La Fetra Senior Center Older Building Exterior

Uniformat Code: B1080
Recommendation: **Replace in 2025**

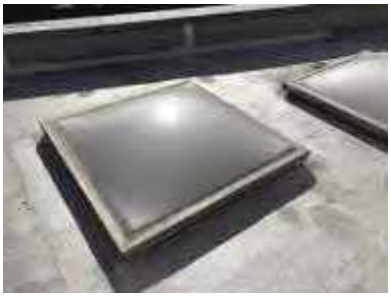
Priority Score: **81.8**

Plan Type:
Performance/Integrity

Cost Estimate: $7,000

**$$**$$

Stairs are blocked from use. Wood is splitting apart. Removal is recommended. - AssetCALC ID: 7162795



Roof Skylight in Poor condition.

per unit, up to 20 SF
La Fetra Senior Center Roof

Uniformat Code: B3060
Recommendation: **Replace in 2025**

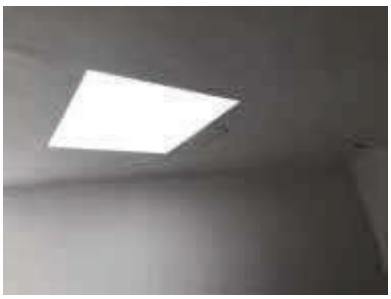
Priority Score: **81.8**

Plan Type:
Performance/Integrity

Cost Estimate: $3,500

**$$**$$

Skylights are leaking - AssetCALC ID: 7162734



Ceiling Finishes in Poor condition.

Gypsum Board/Plaster
La Fetra Senior Center Throughout

Uniformat Code: C2050
Recommendation: **Replace in 2025**

Priority Score: **81.8**

Plan Type:
Performance/Integrity

Cost Estimate: $1,400

**$$**$$

Ceiling leak damage observed in isolated locations. Repair recommended. - AssetCALC ID: 7182075

Foundation System

La Fetra Senior Center Foundation

Uniformat Code: A1010
Recommendation: **Repair in 2028**

Priority Score: **63.6**

Plan Type:
Retrofit/Adaptation

Cost Estimate: $543,700

$$$$

This is a cost allowance pending results of engineering study on foundation. - AssetCALC ID: 7182076

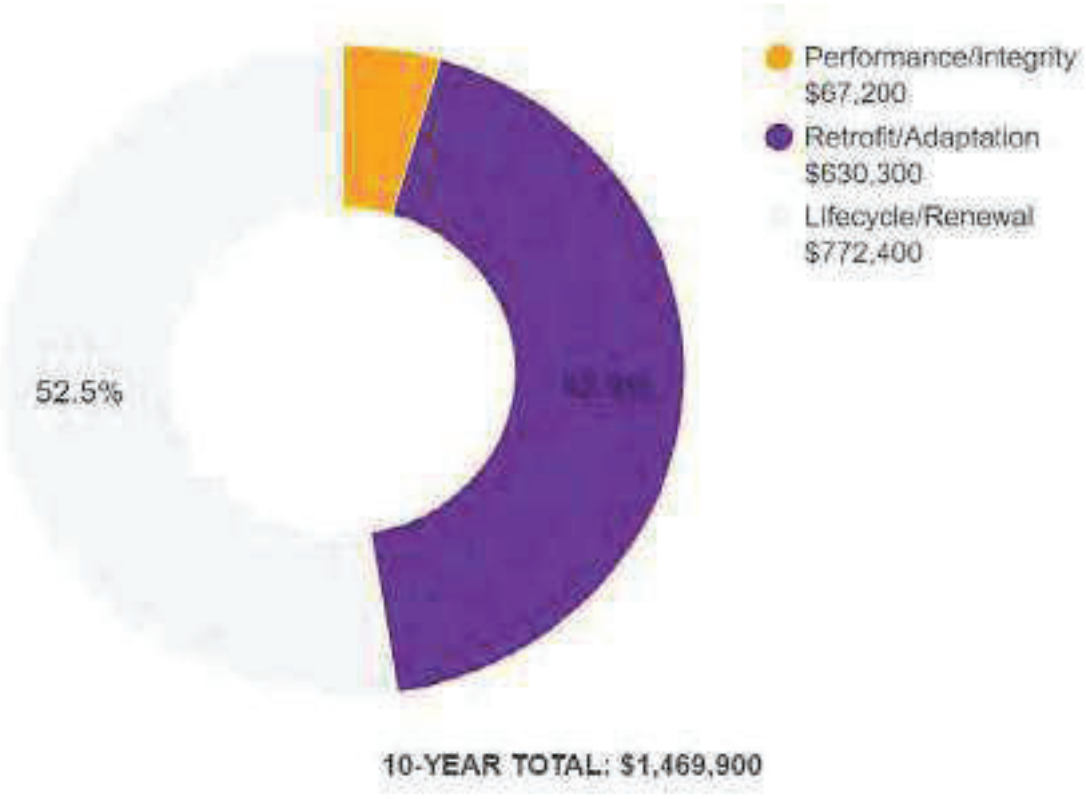
Plan Types

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance.

Plan Type Descriptions

Safety	■	An observed or reported unsafe condition that if left unaddressed could result in injury; a system or component that presents potential liability risk.
Performance/Integrity	■	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses risk to overall system stability.
Accessibility	■	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	■	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Retrofit/Adaptation	■	Components, systems, or spaces recommended for upgrades in in order to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	■	Any component or system that is not currently deficient or problematic but for which future replacement or repair is anticipated and budgeted.

Plan Type Distribution (by Cost)



2. Building and Site Information

Systems Summary

System	Description	Condition
Structure	Conventional wood frame structure over basement foundation (older section) Steel frame with concrete-topped metal decks over concrete slab (newer section)	Good
Façade	Primary Wall Finish: Wood siding Secondary Wall Finish: Stone veneer Windows: Aluminum, wood	Poor
Roof	Primary: Flat construction with single-ply EPDM membrane Secondary: Sloped construction with asphalt shingles	Fair
Interiors	Walls: Painted gypsum board, ceramic tile, vinyl Floors: Carpet, ceramic tile, VCT, vinyl sheeting, quarry tile Ceilings: ACT, painted gypsum board	Fair
Elevators	Passenger: one hydraulic car serving all two floors	Fair
Plumbing	Distribution: Copper supply and cast-iron waste and venting Hot Water: Gas water heaters with integral tanks Fixtures: Toilets, urinals, and sinks in restrooms	Fair
HVAC	Non-Central System: Packaged units, split systems and furnaces	Good
Fire Suppression	Fire extinguishers, kitchen hood system	Fair

Systems Summary

Electrical	Source and Distribution: Main switchboard and panel with copper wiring Interior Lighting: LED Emergency Power: None	Fair
Fire Alarm	Alarm panel with smoke detectors, heat detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs	Fair
Equipment/Special	Commercial kitchen	Fair
Site Pavement	Asphalt lots with limited areas of concrete aprons and pavement and adjacent concrete sidewalks, curbs, ramps, and stairs	Fair
Site Development	Property entrance signage Limited park benches, picnic tables, trash receptacles	Fair
Landscaping and Topography	Limited landscaping features including lawns, trees, bushes, and planters Irrigation present Low to moderate site slopes throughout	Fair
Utilities	Municipal water and sewer Local utility-provided electric and natural gas	Good
Site Lighting	Pole-mounted: LED Building-mounted: LED	Good
Ancillary Structures	None	--
Accessibility	Presently it does not appear an accessibility study is needed for this property.	
Key Issues and Findings	Leaky skylights, exterior wall paint chipping, exterior staircase removal, interior building cracking, ceiling leak damage, isolated asphalt pavement cracking, concrete stairs cracking, mature tree growth	

Systems Expenditure Forecast

System	Immediate	Short Term (1-2 yr)	Near Term (3-5 yr)	Med Term (6-10 yr)	Long Term (11-20 yr)	TOTAL
Structure	-	$7,400	$630,300	-	$11,600	$649,300
Facade	-	$32,000	-	$2,200	$237,200	$271,400
Roofing	-	$3,700	$95,700	$28,300	-	$127,700
Interiors	-	$1,500	$85,900	$192,900	$449,300	$729,600
Conveying	-	-	-	$15,400	$115,700	$131,100
Plumbing	-	-	$1,900	$6,500	$599,100	$607,500
HVAC	-	-	$2,200	$52,800	$392,000	$447,000
Fire Protection	-	-	-	$5,800	-	$5,800
Electrical	-	-	-	-	$1,048,400	$1,048,400
Fire Alarm & Electronic Systems	-	-	-	$89,900	-	$89,900
Equipment & Furnishings	-	-	$53,200	$77,800	$71,500	$202,500
Site Utilities	-	-	-	$34,800	$42,900	$77,700
Site Pavement	-	$5,300	-	$5,800	$67,800	$78,900
Site Development	$2,000	-	-	$27,000	$6,300	$35,400
Follow-up Studies	$9,500	-	-	-	-	$9,500
TOTALS (3% inflation)	**$11,500**	**$49,900**	**$869,200**	**$539,100**	**$3,041,900**	**$4,511,600**

3. Property Space Use and Observed Areas

Areas Observed

The interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roofs.

Key Spaces Not Observed

All key areas of the property were accessible and observed.

4. ADA Accessibility

Generally, Title II of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "public facilities" on the basis of disability. Regardless of their age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

A public entity (i.e. city governments) shall operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.

However, this does not:

1. Necessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities;
2. Require a public entity to take any action that would threaten or destroy the historic significance of an historic property; or
3. Require a public entity to take any action that it can demonstrate would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens. In those circumstances where personnel of the public entity believe that the proposed action would fundamentally alter the service, program, or activity or would result in undue financial and administrative burdens, a public entity has the burden of proving that compliance with 35.150(a) of this part would result in such alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

During the FCA, Bureau Veritas performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to the same areas observed while performing the FCA and the categories set forth in the checklists that are included in the appendix. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of this particular assessment. A full measured ADA survey would be required to identify any and all specific potential accessibility issues. Additional clarifications of this limited survey:

- This survey was visual in nature and actual measurements were not taken to verify compliance
- Only a representative sample of areas was observed
- Two overview photos were taken for each subsection regardless of perceived compliance or non-compliance
- Itemized costs for individual non-compliant items are not included in the dataset
- For any "none" boxes checked or reference to "no issues" identified, that alone does not guarantee full compliance

The facility was originally constructed in 1933. The facility was substantially renovated in 1996 and widespread accessibility improvements appear to have been implemented at that time.

During the interview process with the client representatives, no complaints or pending litigation associated with potential accessibility issues was reported.

No detailed follow-up accessibility study is currently recommended since no major or moderate issues were identified at the subject site. Reference the appendix for specific data, photos, and tables or checklists associated with this limited accessibility survey.

5. Purpose and Scope

Purpose

Bureau Veritas was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building systems and related components are typically defined as being in one of five condition ratings. For the purposes of this report, the following definitions are used:

Condition Ratings	
Excellent	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

6. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means, CBRE Whitestone,* and *Marshall & Swift,* Bureau Veritas's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, Bureau Veritas opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based primarily on age and condition with the presumption of continued use and maintenance of the Property similar to the observed and reported past use and maintenance practices, in conjunction with the professional judgment of Bureau Veritas's assessors. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Definitions

Immediate Needs

Immediate Needs are line items that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

For database and reporting purposes the line items with RUL=0, and commonly associated with *Safety* or *Performance/Integrity* Plan Types, are considered Immediate Needs.

Replacement Reserves

Cost line items traditionally called Replacement Reserves (equivalently referred to as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, Bureau Veritas's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

Bureau Veritas's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined as Immediate Needs.

For the purposes of 'bucketizing' the System Expenditure Forecasts in this report, the Replacement Reserves have been subdivided and grouped as follows: Short Term (years 1-3), Near Term (years 4-5), Medium Term (years 6-10), and Long Term (years 11-20).

Key Findings

In an effort to highlight the most significant cost items and not be overwhelmed by the Replacement Reserves report in its totality, a subsection of Key Findings is included within the Executive Summary section of this report. Key Findings typically include repairs or replacements of deficient items within the first five-year window, as well as the most significant high-dollar line items that fall anywhere within the ten-year term. Note that while there is some subjectivity associated with identifying the Key Findings, the Immediate Needs are always included as a subset.

Exceedingly Aged

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing "very old" systems or components that are still functioning adequately and do not appear nor were reported to be in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as Exceedingly Aged. This designation will be reserved for mechanical or electrical systems or components that have aged well beyond their industry standard lifecycles, typically at least 15 years beyond and/or twice their Estimated Useful Life (EUL). In tandem with this designation, these items will be assigned a Remaining Useful Life (RUL) not less than two years but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical Short Term window but will not be pushed 'irresponsibly' (too far) into the future.

7. Energy Audit

The purpose of this Energy Audit is to provide La Fetra Senior Center with a baseline of energy usage, the relative energy efficiency of the facility, and specific recommendations for Energy Conservation Measures. Information obtained from these analyses may be used to support a future application to an Energy Conservation Program, Federal and Utility grants towards energy conservation, as well as support performance contracting, justify a municipal bond-funded improvement program, or as a basis for replacement of equipment or systems

The energy audit consisted of an onsite visual assessment to determine current conditions, itemize the energy consuming equipment (i.e. Boilers, Make-Up Air Units, DWH equipment); review lighting systems both exterior and interior; and review efficiency of all such equipment. The study also included interviews and consultation with operational and maintenance personnel. The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

The following is a summary of the tasks and reporting that make up the Energy Audit portion of the report.

Energy and Water Using Equipment

- Bureau Veritas has surveyed the common areas, offices, maintenance facilities and mechanical rooms to document utility-related equipment, including heating systems, cooling systems, air handling systems and lighting systems.

Building Envelope

- Bureau Veritas has reviewed the characteristics and conditions of the building envelope, checking insulation values and conditions. This review also includes an inspection of the condition of walls, windows, doors, roof areas, insulation and special use areas. Where we anticipated significant losses, we utilized infrared thermographs to analyze heat loss across the envelope.

Recommendations for Energy Savings Opportunities

- Based on the information gathered during the on-site assessment, the utility rates, as well as recent consumption data and engineering analysis, Bureau Veritas has identified opportunities to save energy and provide probable construction costs, projected energy/utility savings and provide a simple payback analysis.

Analysis of Energy Consumption

- Based on the information gathered during the on-site assessment and a, Bureau Veritas has conducted an analysis of the energy usage of all equipment, and identified which equipment is using the most energy and what equipment upgrades may be necessary. As a result, equipment upgrades, or replacements are identified that may provide a reasonable return on the investment and improve maintenance reliability.

Energy Audit Process

- Interviewing staff and review plans and past upgrades
- Performing an energy audit for each use type
- Performing a preliminary evaluation of the utility system
- Analyzing findings, utilizing ECM cost-benefit worksheets
- Making preliminary recommendations for system energy improvements and measures
- Estimating initial cost and changes in operating and maintenance costs based on implementation of energy efficiency measures
- Ranking recommended cost measures, based on the criticality of the project and the largest payback

8. Energy Conservation Measures

Bureau Veritas has conducted an Energy Audit on La Fetra Senior Center. The study included a review of the building's construction features, historical energy and water consumption and costs, review of the building envelope, HVAC equipment, heat distribution systems, lighting, and the building's operational and maintenance practices.

Bureau Veritas has evaluated four Energy Conservation Measures (ECMs) for this property. The savings for each measure are calculated using standard engineering methods followed in the industry, and detailed calculations for ECM are provided in Appendix H for reference. A 10% discount in energy savings was applied to account for the interactive effects amongst the ECMs. In addition to the consideration of the interactive effects, Bureau Veritas has applied a 15% contingency to the implementation costs to account for potential cost overruns during the implementation of the ECMs.

Recommended Energy Conservation Measures: Financial Impact	
Total Projected Initial ECM Investment	$7,422 *(In Current Dollars)*
Estimated Annual Cost Savings Related to ECMs	$1,930 *(In Current Dollars)*
Net Effective ECM Payback	3.85 years

Bureau Veritas screens ECMs using two financial methodologies. ECMs which are considered financially viable must meet both criteria.

1. Simple Payback Period –The number of years required for the cumulative value of energy or water cost savings less future non-fuel or non-water costs to equal the investment costs of the building energy or water system, without consideration of discount rates. ECMs with a payback period greater than the Expected Useful Life (EUL) of the project are not typically recommended, as the cost of the project will not be recovered during the lifespan of the equipment. These ECMs are recommended for implementation during future system replacement. At that time, replacement may be evaluated based on the premium cost of installing energy efficient equipment.

$$Simple\ Payback = \frac{Initial\ Cost}{Annual\ Savings}$$

Bureau Veritas screens and categorizes all the ECM's as per the 24 CFR 905 regulation requirements based on their payback, but only those ECM's are recommended for implementation that have a Savings to Investment Ratio ≥1.0.

Financialy methodology used to determine the Savings to Investment Ratio is as follows:

2. Savings-to-Investment Ratio (SIR) – The savings-to-investment ratio is the ratio of the present value savings to the present value costs of an energy or water conservation measure. The numerator of the ratio is the present value over the estimated useful life (EUL) of net savings in energy or water and non-fuel or non-water operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure. It is recommended that energy efficiency recommendations should be based on a calculated SIR, with larger SIRs receiving a higher priority. A project is typically only recommended if SIR is greater than or equal to 1.0, unless other factors outweigh the financial benefit.

$$SIR = \frac{Present\ Value\ (Annual\ Savings, i\%, EUL)}{Initial\ Cost}$$

Bureau Veritas has identified four Energy Conservation Measures (ECM) for this property. The basis for an ECM recommendation is a payback of less than the remaining useful life of the system or component. Recommended energy efficiency improvements and the installed cost estimates for recommended energy efficiency measures are provided in the following table:

Energy Conservation Measures					
Priority	Brief Description	Initial Investment	Annual Savings	Payback Period *(years)*	Component EUL *(years)*
1	Install Low Flow Faucet Aerators	$125	$747	0.17	10
2	Retrofit Flush Tank Toilets to Dual Flush	$416	$179	2.33	20
3	Install Low Flow Tankless Restroom Fixtures	$2,140	$625	3.42	15
4	Upgrade Split Heating and Cooling System	$3,773	$593	6.36	18

9. Utility Analysis

Establishing the energy baseline begins with an analysis of the utility cost and consumption of the facility. Utilizing the historical energy data and local weather information, we evaluate the existing utility consumption and assign it to the various end-uses throughout the buildings. The Historical Data Analysis breaks down utilities by consumption, cost and annual profile.

This data is analyzed, using standard engineering assumptions and practices. The analysis serves the following functions:

- Allows our engineers to benchmark the energy and water consumption of the facilities against consumption of efficient buildings of similar construction, use and occupancy.
- Generates the historical and current unit costs for energy and water
- Provides an indication of how well changes in energy consumption correlate to changes in weather.
- Reveals potential opportunities for energy consumption and/or cost reduction. For example, the analysis may indicate that there is excessive, simultaneous heating and cooling, which may mean that there is an opportunity to improve the control of the heating and cooling systems.

By performing this analysis and leveraging our experience, our engineers prioritize buildings and pinpoint systems for additional investigation during the site visit, thereby maximizing the benefit of their time spent on-site and minimizing time and effort by the customer's personnel.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the utility rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Estimated Utility Rates		
Electricity	Natural Gas	Water and Sewer
$0.30/kWh	$2.24/therm	$8.36/CCF

The data analyzed provides the following information: 1) breakdown of utilities by consumption, 2) cost and annual profile, 3) baseline consumption in terms of energy/utility at the facility, 4) the Energy Use Index, or BTU/SF, and cost/SF. For multiple water meters, the utility data is combined to illustrate annual consumption for each utility type.

Electricity

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the electric rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data from the client.

Natural Gas

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used the natural gas rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data.

Water and Sewer

The City of Glendora satisfies the water and sewer requirements of the facility. The billing for the water and sewer is monthly.

Note: No water and sewer utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas has used a rate from other properties within the same geographical region having similar construction layout and usage patterns. Bureau Veritas will update the report on receipt of the actual data.

End Use Energy Distribution

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas will complete end use energy distribution on receipt of the actual data from the client.

Energy Star Portfolio Manager Facility Summary

Bureau Veritas uses the Portfolio Manager tool developed by the Federal Environmental Protection Agency to track relative energy uses of buildings by property type. This tool allows the input of a facility's historic utility data to be compared with normalized data of a large database of its peer facilities.

Note: No utility data was received by Bureau Veritas from the client at the time of report compilation. As a result, Bureau Veritas will complete energy benchmarking on receipt of the actual data from the client.

10. Operations & Maintenance Plan

The quality of the maintenance and the operation of the facility's energy systems have a direct effect on its overall energy efficiency. Energy-efficiency needs to be a consideration when implementing facility modifications, equipment replacements, and general corrective actions. The following is a list of activities that should be performed as part of the routine maintenance program for the property. These actions will ensure that the energy conservation measures identified in this report will remain effective. The following general recommendations should be continued or implemented.

Building Envelope

1. Ensure that the building envelope has proper caulking and weather stripping.
2. Patch holes in the building envelope with foam insulation and fire rated caulk around combustion vents
3. Inspect building vents semiannually for bird infestation
4. Inspect windows monthly for damaged panes and failed thermal seals
5. Repair and adjust automatic door closing mechanisms as needed.

Heating and Cooling

1. Pilot lights on furnaces be turned off in summer
2. All preventive maintenance should be performed on all furnaces, which would include cleaning of burners and heat exchanger tubes.
3. Ensure that the combustion vents exhaust outside the conditioned space and the vent dampers are functional.
4. Ensure the duct work in unconditioned space is un-compromised and well insulated
5. Duct cleaning is recommended every 10 years. This should include sealing of ducts using products similar to 'aero-seal'
6. Ensure that the air dampers are operating correctly
7. Return vents should remain un-obstructed and be located centrally.
8. Temperature settings reduced in unoccupied areas and set points seasonally adjusted.
9. Evaporator coils and condenser coils should be regularly cleaned to improve heat transfer
10. Refrigerant pipes should be insulated with a minimum of ¾" thick Elastometric Rubber Pipe Insulation
11. Ensure refrigerant pressure is maintained in the condensers
12. Change air filters on return vents seasonally. Use only filters with 'Minimum Efficiency Rating Value'(MERV) of 8

Central Domestic Hot Water

1. Never place gas fired water heaters adjacent to return vents so as to prevent flame roll outs
2. Ensure the circulation system is on timer to reduce the losses through re-circulation
3. Ensure all hot water pipes are insulated with fiberglass insulation at all times
4. Replacement water heater should have Energy Factor (EF)>0.9
5. Tank-type water heaters flushed annually.

Lighting

1. Utilize bi-level lighting controls in stairwells and hallways.
2. Use energy efficient replacement lamps (LEDs)
3. Clean lighting fixture reflective surfaces and translucent covers.
4. Ensure that timers and/or photocells are operating correctly on exterior lighting
5. Use occupancy sensors for offices and other rooms with infrequent occupancy

Existing Equipment and Replacements

1. Ensure that refrigerator and freezer doors close and seal correctly
2. Ensure kitchen and bathroom exhaust outside the building and the internal damper operates properly
3. Ensure that bathroom vents exhaust out
4. Office/ computer equipment either in the "sleep" or "off" mode when not used

11. Certification

The City of Glendora (the Client) retained Bureau Veritas to perform this Facility Condition Assessment in connection with its continued operation of La Fetra Senior Center, 333 East Foothill Boulevard, Glendora, California 91741, the “Property”. It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager’s walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property’s original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and Bureau Veritas.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of Bureau Veritas. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to Bureau Veritas.

Prepared by: Carl Alejandro,
Project Manager

Reviewed by:

Usama Anwar,
Technical Report Reviewer for
Mary Venable,
Program Manager
mary.venable@bureauveritas.com
800.733.0660 x 7292719

12. Appendices

Appendix A: Photographic Record
Appendix B: Site Plan
Appendix C: Pre-Survey Questionnaire
Appendix D: Accessibility Review and Photos
Appendix E: Component Condition Report
Appendix F: Replacement Reserves
Appendix G: Equipment Inventory List
Appendix H: Energy Conservation Measures Calculations
Appendix I: Lighting System Schedule
Appendix J: Energy Audit Glossary of Terms

Appendix A:
Photographic Record

Photographic Overview

1 - MAIN OFFICE FRONT ELEVATION

2 - MAIN OFFICE LEFT ELEVATION

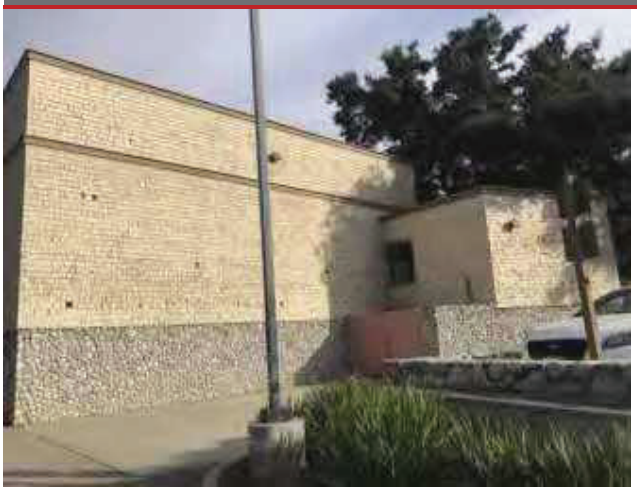
3 - MAIN OFFICE REAR ELEVATION

4 - MAIN OFFICE RIGHT ELEVATION

5 - SENIOR CENTER FRONT ELEVATION

6 - SENIOR CENTER LEFT ELEVATION

Photographic Overview



7 - SENIOR CENTER REAR ELEVATION

8 - SENIOR CENTER RIGHT ELEVATION

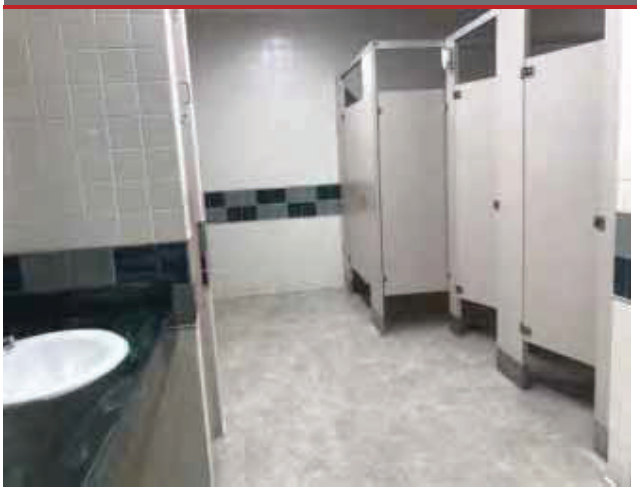
9 - SLOPED ASPHALT SHINGLE ROOFING

10 - SINGLE PLY MEMBRANE EPDM

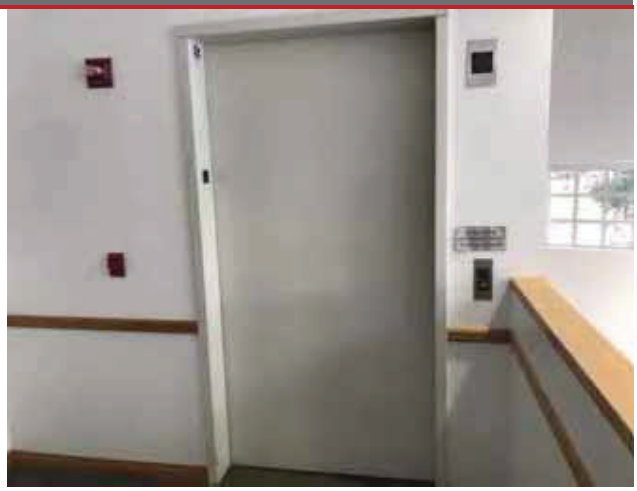
11 - MAIN ADMINISTRATION OFFICE AREA

12 - CAFETERIA AND COMMUNITY ROOM

Photographic Overview



13 - TYPICAL COMMON AREA RESTROOM



14 - HYDRAULIC PASSENGER ELEVATOR SYSTEM

15 - STORAGE TANK WATER HEATER

16 - ROOF MOUNTED PACKAGED UNIT

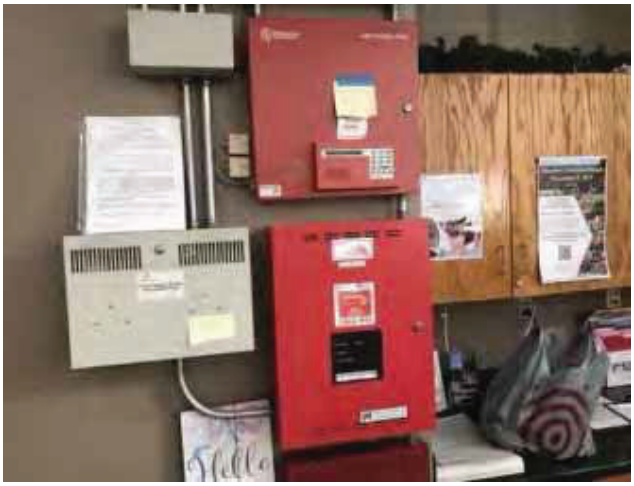
17 - SPLIT SYSTEM CONDENSING UNIT

18 - HVAC GAS FIRED FURNACE

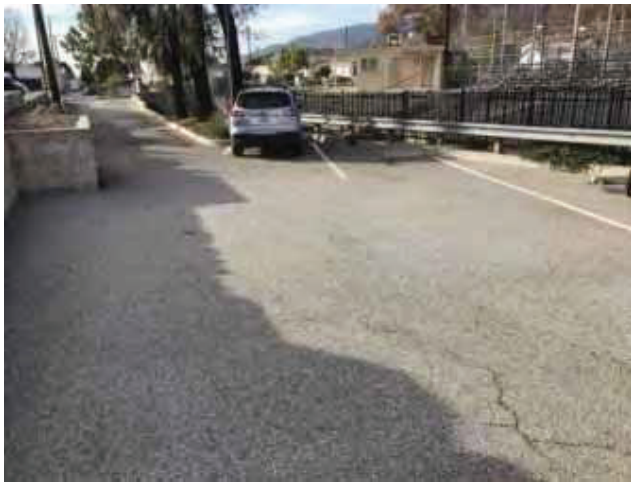
Photographic Overview

19 - ROOF MOUNTED EXHAUST FAN

20 - BUILDING MAIN ELECTRICAL SWITCHBOARD



21 - FIRE ALARM CONTROL PANEL



22 - ASPHALT PAVED PARKING LOT

23 - CONCRETE PAVED PATIO AREA

24 - LED SITE POLE LIGHT

Appendix B:
Site Plan

Site Plan

Project Number	Project Name
158691.23R000-030.379	La Fetra Senior Center
Source	**On-Site Date**
Google	December 11, 2023

N

Appendix C:
Pre-Survey Questionnaire

BV FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: La Fetra Senior Center

Name of person completing form: Ryan Hacecky

Title / Association w/ property: Facilities Maintenance Supervisor

Length of time associated w/ property: 2 years

Date Completed: 12/11/2023

Phone Number: 626.672.6306

Method of Completion: INTERVIEW - verbally completed during interview

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses.

	Data Overview	Response		
1	Year(s) constructed	Constructed	Renovated	1933 for front . Late 90's for rear
2	Building size in SF	**SF**		
3	Major Renovation/Rehabilitation		Year	Additional Detail
		Facade		
		Roof		
		Interiors		
		HVAC		
		Electrical		
		Site Pavement		
		Accessibility		
4	List other significant capital improvements (focus on recent years; provide approximate date).			
5	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	Exterior wall painting, carpet, roof deck renovation		
6	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses. (**NA** indicates "*Not Applicable*", **Unk** indicates "*Unknown*")

	Question	Response				Comments
		Yes	No	Unk	NA	
7	Are there any problems with foundations or structures, like excessive settlement?		X			
8	Are there any wall, window, basement or roof leaks?	X				Roof leaks. Repaired as they occur
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality complaints?		X			
10	Are your elevators unreliable, with frequent service calls?		X			
11	Are there any plumbing leaks, water pressure, or clogging/backup issues?		X			
12	Have there been any leaks or pressure problems with natural gas, HVAC piping, or steam service?		X			
13	Are any areas of the facility inadequately heated, cooled or ventilated? Poorly insulated areas?		X			
14	Is the electrical service outdated, undersized, or problematic?		X			System is up to date. But transformer needs to be updated to increase voltage.
15	Are there any problems or inadequacies with exterior lighting?		X			
16	Is site/parking drainage inadequate, with excessive ponding or other problems?		X			
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?		X			
18	ADA: Has an accessibility study been previously performed? If so, when?		X			
19	ADA: Have any ADA improvements been made to the property since original construction? Describe.	X				
20	ADA: Has building management reported any accessibility-based complaints or litigation?		X			
21	Are any areas of the property leased to outside occupants?		X			

Signature of Assessor

Signature of POC

Appendix D:
Accessibility Review and Photos

Visual Checklist - 2010 ADA Standards for Accessible Design

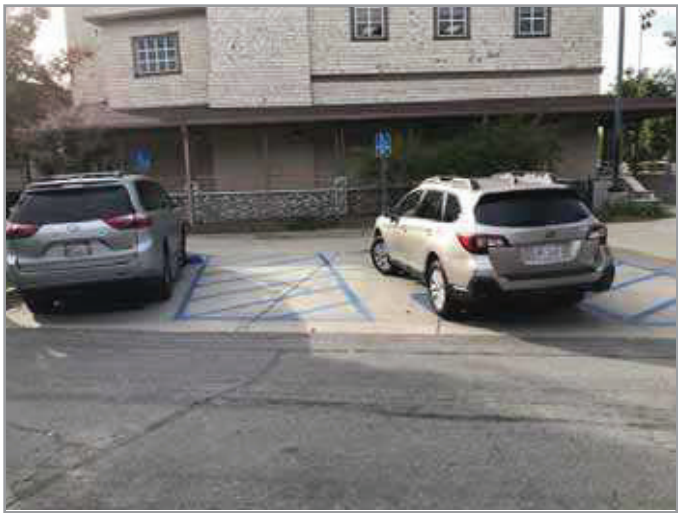
Property Name: La Fetra Senior Center

BV Project Number: 158691.23R000-030.379

Abbreviated Accessibility Checklist					
Facility History & Interview					
	Question	Yes	No	Unk	Comments
1	Has an accessibility study been previously performed? If so, when?		X		
2	Have any ADA improvements been made to the property since original construction? Describe.	X			
3	Has building management reported any accessibility-based complaints or litigation?		X		

Abbreviated Accessibility Checklist

Parking



OVERVIEW OF ACCESSIBLE PARKING AREA

2ND AREA OF ACCESSIBLE PARKING

	Question	Yes	No	NA	Comments
1	Does the required number of standard ADA designated spaces appear to be provided ?	X			
2	Does the required number of van-accessible designated spaces appear to be provided ?	X			
3	Are accessible spaces on the shortest accessible route to an accessible building entrance ?	X			
4	Does parking signage include the International Symbol of Accessibility ?	X			
5	Does each accessible space have an adjacent access aisle ?	X			
6	Do parking spaces and access aisles appear to be relatively level and without obstruction ?	X			

Abbreviated Accessibility Checklist

Exterior Accessible Route

ACCESSIBLE RAMP

CURB CUT

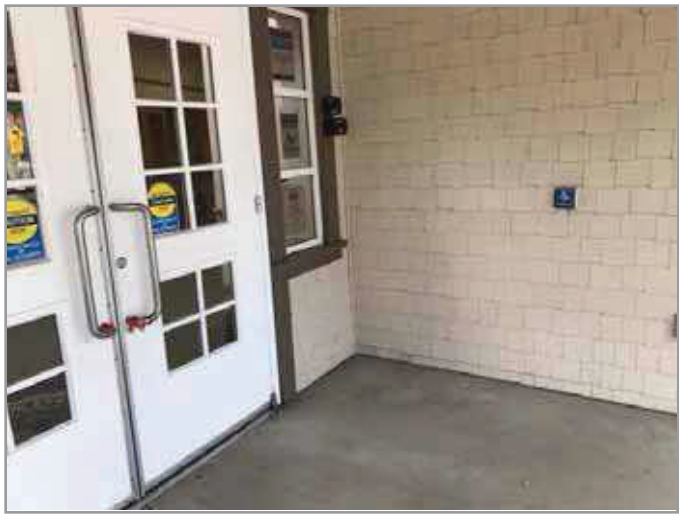
	Question	Yes	No	NA	Comments
1	Is an accessible route present from public transportation stops and municipal sidewalks on or immediately adjacent to the property ?	X			
2	Does a minimum of one accessible route appear to connect all public areas on the exterior, such as parking and other outdoor amenities, to accessible building entrances ?	X			
3	Are curb ramps present at transitions through raised curbs on all accessible routes?	X			
4	Do curb ramps appear to have compliant slopes for all components ?	X			
5	Do ramp runs on an accessible route appear to have compliant slopes ?	X			
6	Do ramp runs on an accessible route appear to have a compliant rise and width ?	X			

7	Do ramps on an accessible route appear to have compliant end and intermediate landings ?	X			
8	Do ramps and stairs on an accessible route appear to have compliant handrails?	X			
9	For stairways that are open underneath, are permanent barriers present that prevent or discourage access?			X	

Abbreviated Accessibility Checklist

Building Entrances

ACCESSIBLE ENTRANCE



AUTOMATIC DOOR OPENER

	Question	Yes	No	NA	Comments
1	Do a sufficient number of accessible entrances appear to be provided ?	X			
2	If the main entrance is not accessible, is an alternate accessible entrance provided?			X	
3	Is signage provided indicating the location of alternate accessible entrances ?	X			
4	Do doors at accessible entrances appear to have compliant maneuvering clearance area on each side ?	X			
5	Do doors at accessible entrances appear to have compliant hardware ?	X			
6	Do doors at accessible entrances appear to have a compliant clear opening width ?	X			

7	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them ?			X	
8	Do thresholds at accessible entrances appear to have a compliant height ?	X			

Abbreviated Accessibility Checklist

Interior Accessible Route

ACCESSIBLE INTERIOR PATH

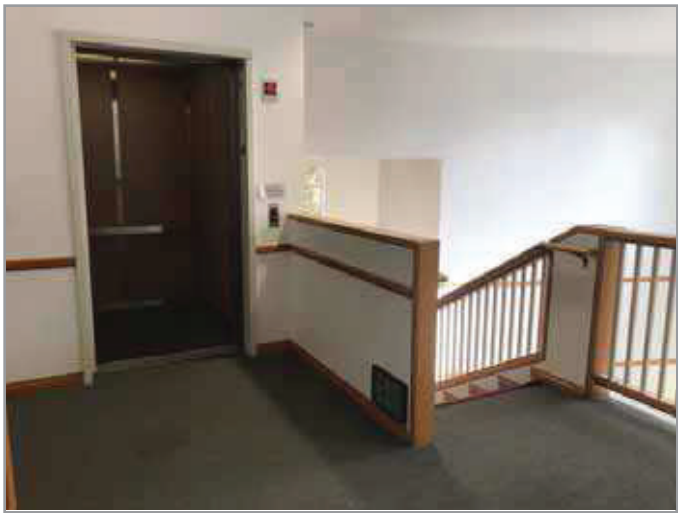
DOOR HARDWARE

	Question	Yes	No	NA	Comments
1	Does an accessible route appear to connect all public areas inside the building ?	X			
2	Do accessible routes appear free of obstructions and/or protruding objects ?	X			
3	Do ramps on accessible routes appear to have compliant slopes ?			X	
4	Do ramp runs on an accessible route appear to have a compliant rise and width ?			X	
5	Do ramps on accessible routes appear to have compliant end and intermediate landings ?			X	
6	Do ramps on accessible routes appear to have compliant handrails ?			X	

7	Are accessible areas of refuge and the accessible means of egress to those areas identified with accessible signage ?			X	
8	Do public transaction areas have an accessible, lowered service counter section ?			X	
9	Do public telephones appear mounted with an accessible height and location ?			X	
10	Do doors at interior accessible routes appear to have compliant maneuvering clearance area on each side ?	X			
11	Do doors at interior accessible routes appear to have compliant hardware ?	X			
12	Do non-fire hinged, sliding, or folding doors on interior accessible routes appear to have compliant opening force ?	X			
13	Do doors on interior accessible routes appear to have a compliant clear opening width ?	X			

Abbreviated Accessibility Checklist

Elevators



LOBBY LOOKING AT CABS (WITH DOORS OPEN)

IN-CAB CONTROLS

	Question	Yes	No	NA	Comments
1	Are hallway call buttons configured with the “UP” button above the “DOWN” button?	X			
2	Is accessible floor identification signage present on the hoistway sidewalls on each level ?	X			
3	Do the elevators have audible and visual arrival indicators at the lobby and hallway entrances?	X			
4	Do the elevator hoistway and car interior appear to have a minimum compliant clear floor area ?	X			
5	Do the elevator car doors have automatic re-opening devices to prevent closure on obstructions?	X			
6	Do elevator car control buttons appear to be mounted at a compliant height ?	X			

7	Are tactile and Braille characters mounted to the left of each elevator car control button ?	✕			
8	Are audible and visual floor position indicators provided in the elevator car?	✕			
9	Is the emergency call system on or adjacent to the control panel and does it not require voice communication ?	✕			

Abbreviated Accessibility Checklist

Public Restrooms

TOILET STALL OVERVIEW

SINK, FAUCET HANDLES AND ACCESSORIES

	Question	Yes	No	NA	Comments
1	Do publicly accessible toilet rooms appear to have a minimum compliant floor area ?	X			
2	Does the lavatory appear to be mounted at a compliant height and with compliant knee area ?	X			
3	Does the lavatory faucet have compliant handles ?	X			
4	Is the plumbing piping under lavatories configured to protect against contact ?	X			
5	Are grab bars provided at compliant locations around the toilet ?	X			
6	Do toilet stall doors appear to provide the minimum compliant clear width ?	X			

7	Do toilet stalls appear to provide the minimum compliant clear floor area ?	✕			
8	Where more than one urinal is present in a multi-user restroom, does minimum one urinal appear to be mounted at a compliant height and with compliant approach width ?	✕			
9	Do accessories and mirrors appear to be mounted at a compliant height ?	✕			

Appendix E:
Component Condition Report

Component Condition Report | La Fetra Senior Center

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Structure						
A1010	Foundation	NA	Foundation System, Repair	16,780 SF	5	7162076
B1080	Older Building Exterior	Poor	Stairs, Wood, Exterior	130 SF	2	7162795
Facade						
B2010	Building Exterior	Poor	Exterior Walls, any painted surface, Prep & Paint	7,440 SF	2	7162794
B2020	Building exterior	Fair	Window, Aluminum Double-Glazed, 16-25 SF	31	15	7162749
B2020	Kitchen	Fair	Screens & Shutters, Rolling Security Shutter, 10 to 50 SF	1	10	7162785
B2020	Older Building Exterior	Fair	Window, Wood, 16-25 SF	42	15	7162728
B2050	Building Exterior	Fair	Exterior Door, Aluminum-Framed & Glazed, Standard Swing	7	15	7162752
B2050	Building Exterior	Fair	Exterior Door, Steel, Standard	3	20	7162768
B2050	Older Building Exterior	Fair	Exterior Door, Wood, Solid-Core	2	13	7162761
Roofing						
B3010	Older Side	Fair	Roofing, Asphalt Shingle, 20-Year Standard	4,100 SF	10	7162730
B3010	Lower Roof	Fair	Roofing, Single-Ply Membrane, EPDM	5,900 SF	3	7162726
B3060	Roof	Poor	Roof Skylight, per unit, up to 20 SF	2	2	7162734
Interiors						
C1030	Throughout building	Fair	Interior Door, Wood, Solid-Core	34	20	7162780
C1070	Throughout building	Fair	Suspended Ceilings, Acoustical Tile (ACT)	14,000 SF	13	7162731
C2010	Throughout building	Fair	Wall Finishes, Ceramic Tile	2,170 SF	15	7162787
C2010	Throughout building	Fair	Wall Finishes, any surface, Prep & Paint	19,250 SF	5	7162747
C2010	Kitchen	Fair	Wall Finishes, Vinyl	3,750 SF	8	7162744
C2030	Kitchen	Fair	Flooring, Quarry Tile	2,000 SF	8	7162737
C2030	Throughout building	Fair	Flooring, Vinyl Tile (VCT)	8,600 SF	8	7162801
C2030	Throughout building	Fair	Flooring, Carpet, Commercial Standard	2,780 SF	5	7162765

Component Condition Report | La Fetra Senior Center

UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
C2030	Restrooms	Fair	Flooring, Ceramic Tile	1,450 SF	20	7162763
C2030	Throughout building	Fair	Flooring, Vinyl Sheeting	1,000 SF	8	7162766
C2030	Lobby	Fair	Flooring, Ceramic Tile	750 SF	20	7162762
C2030	Restrooms	Fair	Flooring, Vinyl Sheeting	200 SF	8	7162746
C2050	Throughout	Poor	Ceiling Finishes, Gypsum Board/Plaster	130 SF	2	7162075
C2050	Restrooms	Fair	Ceiling Finishes, any flat surface, Prep & Paint	2,580 SF	5	7162748
Conveying						
D1010	Elevator	Fair	Passenger Elevator, Hydraulic, 2 Floors, Renovate	1	15	7162786
D1010	Elevator	Fair	Elevator Cab Finishes, Standard	1	8	7162770
Plumbing						
D2010	Restrooms	Fair	Sink/Lavatory, Wall-Hung, Enameled Steel	8	15	7162755
D2010	Older Building Exterior	Fair	Backflow Preventer, Domestic Water	1	15	7162716
D2010	Restrooms	Fair	Urinal, Standard	3	15	7162782
D2010	Older Kitchen	Fair	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China	4	12	7162777
D2010	Kitchen	Fair	Sink/Lavatory, Service Sink, Wall-Hung	1	18	7162715
D2010	Throughout building	Fair	Sink/Lavatory, Vanity Top, Stainless Steel	3	15	7162774
D2010	Kitchen	Fair	Sink/Lavatory, Vanity Top, Stainless Steel	1	15	7162724
D2010	Utility closet	Fair	Sink/Lavatory, Service Sink, Floor	1	8	7162793
D2010	Basement	Fair	Water Heater, Gas, Residential	1	3	7162781
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 3-Bowl	1	15	7162810
D2010	Kitchen	Good	Water Heater, Gas, Commercial (200 MBH)	1	19	7162790
D2010	Throughout building	Fair	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures)	16,780 SF	20	7162729
D2010	Restrooms	Fair	Toilet, Residential Water Closet	3	12	7162769
D2010	Throughout building	Fair	Drinking Fountain, Wall-Mounted, Bi-Level	2	8	7162718
D2010	Restrooms	Fair	Toilet, Commercial Water Closet	11	15	7162745

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
D2010	Kitchen	Fair	Sink/Lavatory, Commercial Kitchen, 1-Bowl	1	15	7162806
HVAC						
D3020	Basement	Fair	Furnace, Gas	1	10	7162739
D3020	Older side attic	Fair	Furnace, Gas, 51 to 100 MBH	1	10	7162077
D3030	Older Building Exterior	Fair	Split System, Condensing Unit/Heat Pump	1	8	7162783
D3030	Older Building Exterior	Good	Split System, Condensing Unit/Heat Pump	1	12	7162754
D3050	Upper Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	15	7162742
D3050	Lower Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	14	7162804
D3050	Lower Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	14	7162808
D3050	Upper Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	13	7162740
D3050	Throughout building	Fair	HVAC System, Ductwork, Medium Density	16,780 SF	15	7162797
D3050	Upper Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	15	7162750
D3050	Upper Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	15	7162751
D3050	Lower Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	15	7162778
D3050	Upper Roof	Good	Packaged Unit, RTU, Pad or Roof-Mounted	1	15	7162787
D3060	Upper Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	10	7162764
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	10	7162721
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	10	7162788
D3060	Kitchen	Fair	Supplemental Components, Air Curtain, 5' Wide Non-Heated	1	3	7162803
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 10" Damper	1	10	7162714
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 12" Damper	1	10	7162756
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 24" Damper	1	10	7162807
D3060	Lower Roof	Fair	Exhaust Fan, Roof or Wall-Mounted, 16" Damper	1	10	7162741
Fire Protection						
D4010	Kitchen	Fair	Fire Suppression System, Commercial Kitchen, per LF of Hood	8 LF	10	7162743

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
Electrical						
D5020	Older Building Exterior	Fair	Distribution Panel, 120/208 V	1	12	7162738
D5020	Electrical room	Fair	Switchboard, 120/208 V	1	20	7162717
D5020	Electrical room	Fair	Distribution Panel, 120/208 V	1	15	7162725
D5020	Throughout building	Fair	Electrical System, Full System Renovation/Upgrade, Medium Density/Complexity	16,780 SF	20	7162757
D5040	Throughout building	Good	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures	16,780 SF	18	7162798
Fire Alarm & Electronic Systems						
D7050	Throughout building	Fair	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	11,800 SF	10	7162719
D7050	Lobby	Fair	Fire Alarm Panel, Fully Addressable	1	8	7162811
Equipment & Furnishings						
E1030	Kitchen	Fair	Foodservice Equipment, Steam Table	1	5	7162791
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 1-Door Reach-In	1	8	7162789
E1030	Kitchen	Fair	Foodservice Equipment, Garbage Disposal, 1 to 3 HP	1	8	7162773
E1030	Kitchen	Fair	Foodservice Equipment, Icemaker, Freestanding	1	8	7162796
E1030	Kitchen	Fair	Foodservice Equipment, Range/Oven, 4-Burner w/ Griddle	1	8	7162720
E1030	Kitchen	Fair	Foodservice Equipment, Coffee Machine	1	5	7162812
E1030	Kitchen	Fair	Foodservice Equipment, Coffee Machine	1	5	7162776
E1030	Kitchen	Fair	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels	1	8	7162722
E1030	Kitchen	Fair	Foodservice Equipment, Freezer, 1-Door Reach-In	1	8	7162771
E1030	Kitchen	Fair	Foodservice Equipment, Exhaust Hood, 8 to 10 LF	1	8	7162758
E1030	Kitchen	Fair	Foodservice Equipment, Dishwasher Commercial	1	5	7162733
E1040	Lobby	Fair	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted	1	5	7162736
E2010	Throughout building	Fair	Casework, Cabinetry, Hardwood Standard	50 LF	10	7162735
Pedestrian Plazas & Walkways						
G2020	Site	Fair	Parking Lots, Pavement, Asphalt, Mill & Overlay	7,700 SF	13	7162800

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UF L3 Code	Location	Condition	Asset/Component/Repair	Quantity	RUL	ID
G2020	Site	Poor	Parking Lots, Pavement, Asphalt, Seal & Stripe	7,700 SF	2	7162802
G2030	Older Building Exterior	Poor	Site Stairs & Ramps, Steps, Concrete (per LF of nosing)	6 LF	2	7162799
Sitework						
G2060	Site	Fair	Trash Receptacle, Medium-Duty Metal or Precast	3	10	7162727
G2060	Site	Fair	Park Bench, Wood/Composite/Fiberglass	5	10	7162760
G2060	Site	Good	Signage, Property, Monument, Replace/Install	1	15	7162759
G2060	Site	Fair	Picnic Table, Metal Powder-Coated	1	10	7162792
G2080	Site	Poor	Landscaping, Mature Trees, Removal/Trimming, Repair	1	0	7162775
G2080	Site	Fair	Irrigation System, Pop-Up Spray Heads, Commercial, Replace/Install	9,100 SF	10	7162809
G4050	Site	Good	Pole Light Fixture w/ Lamps, any type 30' High, w/ LED Replacement, Replace/Install	3	15	7162723
G4050	Site	Fair	Site Walkway Fixture, Bollard Style, Surface-Mounted Metal, Replace/Install	10	10	7162732
G4050	Building exterior	Fair	Exterior Fixture w/ Lamp, any type, w/ LED Replacement	17	10	7162805
Follow-up Studies						
P2030	Interior	Poor	Engineering Study, Civil, General Design	1	0	7162772

Appendix F:
Replacement Reserves

Replacement Reserves Report

La Fetra Senior Center

2/16/2024

Location	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Total Escalated Estimate
La Fetra Senior Center	$11,475	$0	$49,951	$99,870	$0	$769,372	$0	$5,753	$303,165	$0	$230,197	$0	$73,690	$175,156	$122,520	$964,795	$0	$19,335	$179,749	$39,296	$1,467,388	**$4,511,710**
Grand Total	**$11,475**	**$0**	**$49,951**	**$99,870**	**$0**	**$769,372**	**$0**	**$5,753**	**$303,165**	**$0**	**$230,197**	**$0**	**$73,690**	**$175,156**	**$122,520**	**$964,795**	**$0**	**$19,335**	**$179,749**	**$39,296**	**$1,467,388**	**$4,511,710**

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup	*Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
A1010	Foundation	7182076	Foundation System, , Repair	75	70	5	16780	SF	$24.00	$32.40	$543,672						$543,672																	**$543,672**
B1080	Older Building Exterior	7162795	Stairs, Wood, Exterior, Replace	15	13	2	130	SF	$40.00	$54.00	$7,020			$7,020															$7,020					**$14,040**
B2010	Building Exterior	7162794	Exterior Walls, any painted surface, Prep & Paint	10	8	2	7440	SF	$3.00	$4.05	$30,132			$30,132										$30,132										**$60,264**
B2020	Older Building Exterior	7162728	Window, Wood, 16-25 SF, Replace	30	15	15	42	EA	$1,200.00	$1,620.00	$68,040																$68,040							**$68,040**
B2020	Building exterior	7162749	Window, Aluminum Double-Glazed, 16-25 SF, Replace	30	15	15	31	EA	$950.00	$1,282.50	$39,758																$39,758							**$39,758**
B2020	Kitchen	7162785	Screens & Shutters, Rolling Security Shutter, 10 to 50 SF, Replace	20	10	10	1	EA	$1,200.00	$1,620.00	$1,620											$1,620												**$1,620**
B2050	Older Building Exterior	7162761	Exterior Door, Wood, Solid-Core, Replace	25	12	13	2	EA	$700.00	$945.00	$1,890														$1,890									**$1,890**
B2050	Building Exterior	7162752	Exterior Door, Aluminum-Framed & Glazed, Standard Swing, Replace	30	15	15	7	EA	$1,300.00	$1,755.00	$12,285																$12,285							**$12,285**
B2050	Building Exterior	7162768	Exterior Door, Steel, Standard, Replace	40	20	20	3	EA	$600.00	$810.00	$2,430																						$2,430	**$2,430**
B3010	Older Side	7162730	Roofing, Asphalt Shingle, 20-Year Standard, Replace	20	10	10	4100	SF	$3.80	$5.13	$21,033											$21,033												**$21,033**
B3010	Lower Roof	7162726	Roofing, Single-Ply Membrane, EPDM, Replace	20	17	3	5900	SF	$11.00	$14.85	$87,615				$87,615																			**$87,615**
B3060	Roof	7162734	Roof Skylight, per unit, up to 20 SF, Replace	30	28	2	2	EA	$1,300.00	$1,755.00	$3,510			$3,510																				**$3,510**
C1030	Throughout building	7162780	Interior Door, Wood, Solid-Core, Replace	40	20	20	34	EA	$700.00	$945.00	$32,130																						$32,130	**$32,130**
C1070	Throughout building	7162731	Suspended Ceilings, Acoustical Tile (ACT), Replace	25	12	13	14000	SF	$3.50	$4.73	$66,150														$66,150									**$66,150**
C2010	Throughout building	7162787	Wall Finishes, Ceramic Tile, Replace	40	25	15	2170	SF	$18.00	$24.30	$52,731																$52,731							**$52,731**
C2010	Kitchen	7162744	Wall Finishes, Vinyl, Replace	15	7	8	3750	SF	$2.50	$3.38	$12,656									$12,656														**$12,656**
C2010	Throughout building	7162747	Wall Finishes, any surface, Prep & Paint	10	5	5	19250	SF	$1.50	$2.03	$38,981						$38,981										$38,981							**$77,963**
C2030	Kitchen	7162737	Flooring, Quarry Tile, Replace	50	42	8	2000	SF	$26.00	$35.10	$70,200									$70,200														**$70,200**
C2030	Restrooms	7162763	Flooring, Ceramic Tile, Replace	40	20	20	1450	SF	$18.00	$24.30	$35,235																						$35,235	**$35,235**
C2030	Lobby	7162762	Flooring, Ceramic Tile, Replace	40	20	20	750	SF	$18.00	$24.30	$18,225																						$18,225	**$18,225**
C2030	Restrooms	7162746	Flooring, Vinyl Sheeting, Replace	15	7	8	200	SF	$7.00	$9.45	$1,890									$1,890														**$1,890**
C2030	Throughout building	7162766	Flooring, Vinyl Sheeting, Replace	15	7	8	1000	SF	$7.00	$9.45	$9,450									$9,450														**$9,450**
C2030	Throughout building	7162801	Flooring, Vinyl Tile (VCT), Replace	15	7	8	8600	SF	$5.00	$6.75	$58,050									$58,050														**$58,050**
C2030	Throughout building	7162765	Flooring, Carpet, Commercial Standard, Replace	10	5	5	2780	SF	$7.50	$10.13	$28,148						$28,148										$28,148							**$56,295**
C2050	Throughout	7182075	Ceiling Finishes, Gypsum Board/Plaster, Replace	50	48	2	130	SF	$8.00	$10.80	$1,404			$1,404																				**$1,404**
C2050	Restrooms	7162748	Ceiling Finishes, any flat surface, Prep & Paint	10	5	5	2580	SF	$2.00	$2.70	$6,966						$6,966										$6,966							**$13,932**
D1010	Elevator	7162770	Elevator Cab Finishes, Standard, Replace	15	7	8	1	EA	$9,000.00	$12,150.00	$12,150									$12,150														**$12,150**
D1010	Elevator	7162786	Passenger Elevator, Hydraulic, 2 Floors, Renovate	30	15	15	1	EA	$55,000.00	$74,250.00	$74,250																$74,250							**$74,250**
D2010	Basement	7162781	Water Heater, Gas, Residential, Replace	15	12	3	1	EA	$1,300.00	$1,755.00	$1,755				$1,755															$1,755				**$3,510**
D2010	Kitchen	7162790	Water Heater, Gas, Commercial (200 MBH), Replace	20	1	19	1	EA	$16,600.00	$22,410.00	$22,410																				$22,410			**$22,410**
D2010	Older Building Exterior	7162716	Backflow Preventer, Domestic Water, Replace	30	15	15	1	EA	$3,200.00	$4,320.00	$4,320																$4,320							**$4,320**
D2010	Throughout building	7162729	Plumbing System, Supply & Sanitary, Medium Density (excludes fixtures), Replace	40	20	20	16780	SF	$11.00	$14.85	$249,183																						$249,183	**$249,183**
D2010	Throughout building	7162718	Drinking Fountain, Wall-Mounted, Bi-Level, Replace	15	7	8	2	EA	$1,500.00	$2,025.00	$4,050									$4,050														**$4,050**
D2010	Utility closet	7162793	Sink/Lavatory, Service Sink, Floor, Replace	35	27	8	1	EA	$800.00	$1,080.00	$1,080									$1,080														**$1,080**
D2010	Older Kitchen	7162777	Sink/Lavatory, Vanity Top, Solid Surface or Vitreous China, Replace	30	18	12	4	EA	$1,100.00	$1,485.00	$5,940													$5,940										**$5,940**
D2010	Restrooms	7162769	Toilet, Residential Water Closet, Replace	30	18	12	3	EA	$700.00	$945.00	$2,835													$2,835										**$2,835**
D2010	Throughout building	7162774	Sink/Lavatory, Vanity Top, Stainless Steel, Replace	30	15	15	3	EA	$1,200.00	$1,620.00	$4,860																$4,860							**$4,860**
D2010	Restrooms	7162745	Toilet, Commercial Water Closet, Replace	30	15	15	11	EA	$1,300.00	$1,755.00	$19,305																$19,305							**$19,305**
D2010	Restrooms	7162755	Sink/Lavatory, Wall-Hung, Enameled Steel, Replace	30	15	15	8	EA	$1,700.00	$2,295.00	$18,360																$18,360							**$18,360**
D2010	Restrooms	7162782	Urinal, Standard, Replace	30	15	15	3	EA	$1,100.00	$1,485.00	$4,455																$4,455							**$4,455**
D2010	Kitchen	7162724	Sink/Lavatory, Vanity Top, Stainless Steel, Replace	30	15	15	1	EA	$1,200.00	$1,620.00	$1,620																$1,620							**$1,620**
D2010	Kitchen	7162810	Sink/Lavatory, Commercial Kitchen, 3-Bowl, Replace	30	15	15	1	EA	$2,500.00	$3,375.00	$3,375																$3,375							**$3,375**
D2010	Kitchen	7162806	Sink/Lavatory, Commercial Kitchen, 1-Bowl, Replace	30	15	15	1	EA	$1,600.00	$2,160.00	$2,160																$2,160							**$2,160**
D2010	Kitchen	7162715	Sink/Lavatory, Service Sink, Wall-Hung, Replace	35	17	18	1	EA	$1,400.00	$1,890.00	$1,890																			$1,890				**$1,890**
D3020	Basement	7162739	Furnace, Gas, Replace	20	10	10	1	EA	$4,200.00	$5,670.00	$5,670											$5,670												**$5,670**
D3020	Older side attic	7182077	Furnace, Gas, 51 to 100 MBH, Replace	20	10	10	1	EA	$4,200.00	$5,670.00	$5,670											$5,670												**$5,670**
D3030	Older Building Exterior	7162783	Split System, Condensing Unit/Heat Pump, Replace	15	7	8	1	EA	$7,100.00	$9,585.00	$9,585									$9,585														**$9,585**
D3030	Older Building Exterior	7162754	Split System, Condensing Unit/Heat Pump, Replace	15	3	12	1	EA	$4,000.00	$5,400.00	$5,400													$5,400										**$5,400**
D3050	Upper Roof	7162740	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	7	13	1	EA	$11,000.00	$14,850.00	$14,850														$14,850									**$14,850**
D3050	Lower Roof	7162804	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	6	14	1	EA	$30,000.00	$40,500.00	$40,500															$40,500								**$40,500**
D3050	Lower Roof	7162808	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	6	14	1	EA	$30,000.00	$40,500.00	$40,500															$40,500								**$40,500**
D3050	Lower Roof	7162778	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	5	15	1	EA	$15,000.00	$20,250.00	$20,250																$20,250							**$20,250**
D3050	Upper Roof	7162751	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	5	15	1	EA	$9,000.00	$12,150.00	$12,150																$12,150							**$12,150**
D3050	Upper Roof	7162742	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	5	15	1	EA	$7,500.00	$10,125.00	$10,125																$10,125							**$10,125**

Replacement Reserves Report

La Fetra Senior Center

2/16/2024

Uniformat Code	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup	*Subtotal	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	Deficiency Repair Estimate
D3050	Upper Roof	7162750	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	5	15	1	EA	$9,000.00	$12,150.00	$12,150																$12,150						**$12,150**
D3050	Upper Roof	7162767	Packaged Unit, RTU, Pad or Roof-Mounted, Replace	20	5	15	1	EA	$6,500.00	$8,775.00	$8,775																$8,775						**$8,775**
D3050	Throughout building	7162797	HVAC System, Ductwork, Medium Density, Replace	30	15	15	16780	SF	$4.00	$5.40	$90,612																$90,612						**$90,612**
D3060	Lower Roof	7162807	Exhaust Fan, Roof or Wall-Mounted, 24" Damper, Replace	20	10	10	1	EA	$3,000.00	$4,050.00	$4,050											$4,050											**$4,050**
D3060	Lower Roof	7162741	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	1	EA	$2,400.00	$3,240.00	$3,240											$3,240											**$3,240**
D3060	Lower Roof	7162721	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	1	EA	$2,400.00	$3,240.00	$3,240											$3,240											**$3,240**
D3060	Lower Roof	7162756	Exhaust Fan, Roof or Wall-Mounted, 12" Damper, Replace	20	10	10	1	EA	$1,400.00	$1,890.00	$1,890											$1,890											**$1,890**
D3060	Upper Roof	7162764	Exhaust Fan, Roof or Wall-Mounted, 16" Damper, Replace	20	10	10	1	EA	$2,400.00	$3,240.00	$3,240											$3,240											**$3,240**
D3060	Lower Roof	7162714	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	10	10	1	EA	$1,200.00	$1,620.00	$1,620											$1,620											**$1,620**
D3060	Lower Roof	7162788	Exhaust Fan, Roof or Wall-Mounted, 10" Damper, Replace	20	10	10	1	EA	$1,200.00	$1,620.00	$1,620											$1,620											**$1,620**
D3060	Kitchen	7162803	Supplemental Components, Air Curtain, 5' Wide Non-Heated, Replace	20	17	3	1	EA	$1,500.00	$2,025.00	$2,025				$2,025																		**$2,025**
D4010	Kitchen	7162743	Fire Suppression System, Commercial Kitchen, per LF of Hood, Replace	20	10	10	8	LF	$400.00	$540.00	$4,320											$4,320											**$4,320**
D5020	Electrical room	7162717	Switchboard, 120/208 V, Replace	40	20	20	1	EA	$50,000.00	$67,500.00	$67,500																				$67,500	**$67,500**
D5020	Older Building Exterior	7162738	Distribution Panel, 120/208 V, Replace	30	18	12	1	EA	$2,000.00	$2,700.00	$2,700													$2,700									**$2,700**
D5020	Electrical room	7162725	Distribution Panel, 120/208 V, Replace	30	15	15	1	EA	$6,000.00	$8,100.00	$8,100																$8,100						**$8,100**
D5020	Throughout building	7162757	Electrical System, Full System Renovation/Upgrade, Medium Density/Complexity, Replace	40	20	20	16780	SF	$18.00	$24.30	$407,754																				$407,754	**$407,754**
D5040	Throughout building	7162798	Interior Lighting System, Full Upgrade, Medium Density & Standard Fixtures, Replace	20	2	18	16780	SF	$4.50	$6.08	$101,939																			$101,939			**$101,939**
D7050	Lobby	7162811	Fire Alarm Panel, Fully Addressable, Replace	15	7	8	1	EA	$15,000.00	$20,250.00	$20,250									$20,250													**$20,250**
D7050	Throughout building	7162719	Fire Alarm System, Full System Upgrade, Standard Addressable, Upgrade/Install	20	10	10	11800	SF	$3.00	$4.05	$47,790											$47,790											**$47,790**
E1030	Kitchen	7162812	Foodservice Equipment, Coffee Machine, Replace	10	5	5	1	EA	$2,000.00	$2,700.00	$2,700						$2,700										$2,700						**$5,400**
E1030	Kitchen	7162733	Foodservice Equipment, Dishwasher Commercial, Replace	10	5	5	1	EA	$21,500.00	$29,025.00	$29,025						$29,025										$29,025						**$58,050**
E1030	Kitchen	7162776	Foodservice Equipment, Coffee Machine, Replace	10	5	5	1	EA	$2,000.00	$2,700.00	$2,700						$2,700										$2,700						**$5,400**
E1030	Kitchen	7162791	Foodservice Equipment, Steam Table, Replace	10	5	5	1	EA	$7,000.00	$9,450.00	$9,450						$9,450										$9,450						**$18,900**
E1030	Kitchen	7162773	Foodservice Equipment, Garbage Disposal, 1 to 3 HP, Replace	15	7	8	1	EA	$3,800.00	$5,130.00	$5,130									$5,130													**$5,130**
E1030	Kitchen	7162720	Foodservice Equipment, Range/Oven, 4-Burner w/ Griddle, Replace	15	7	8	1	EA	$6,700.00	$9,045.00	$9,045									$9,045													**$9,045**
E1030	Kitchen	7162758	Foodservice Equipment, Exhaust Hood, 8 to 10 LF, Replace	15	7	8	1	EA	$4,500.00	$6,075.00	$6,075									$6,075													**$6,075**
E1030	Kitchen	7162796	Foodservice Equipment, Icemaker, Freestanding, Replace	15	7	8	1	EA	$6,700.00	$9,045.00	$9,045									$9,045													**$9,045**
E1030	Kitchen	7162789	Foodservice Equipment, Freezer, 1-Door Reach-In, Replace	15	7	8	1	EA	$3,100.00	$4,185.00	$4,185									$4,185													**$4,185**
E1030	Kitchen	7162771	Foodservice Equipment, Freezer, 1-Door Reach-In, Replace	15	7	8	1	EA	$3,100.00	$4,185.00	$4,185									$4,185													**$4,185**
E1030	Kitchen	7162722	Foodservice Equipment, Food Warmer, Proofing Cabinet on Wheels, Replace	15	7	8	1	EA	$1,700.00	$2,295.00	$2,295									$2,295													**$2,295**
E1040	Lobby	7162736	Healthcare Equipment, Defibrillator (AED), Cabinet-Mounted, Replace	10	5	5	1	EA	$1,500.00	$2,025.00	$2,025						$2,025										$2,025						**$4,050**
E2010	Throughout building	7162735	Casework, Cabinetry, Hardwood Standard, Replace	20	10	10	50	LF	$300.00	$405.00	$20,250											$20,250											**$20,250**
G2020	Site	7162802	Parking Lots, Pavement, Asphalt, Seal & Stripe	5	3	2	7700	SF	$0.45	$0.61	$4,678			$4,678					$4,678					$4,678					$4,678				**$18,711**
G2020	Site	7162800	Parking Lots, Pavement, Asphalt, Mill & Overlay	25	12	13	7700	SF	$3.50	$4.73	$36,383														$36,383								**$36,383**
G2030	Older Building Exterior	7162799	Site Stairs & Ramps, Steps, Concrete (per LF of nosing), Replace	50	48	2	6	LF	$42.00	$56.70	$340			$340																			**$340**
G2060	Site	7162760	Park Bench, Wood/Composite/Fiberglass, Replace	20	10	10	5	EA	$600.00	$810.00	$4,050											$4,050											**$4,050**
G2060	Site	7162792	Picnic Table, Metal Powder-Coated, Replace	20	10	10	1	EA	$700.00	$945.00	$945											$945											**$945**
G2060	Site	7162727	Trash Receptacle, Medium-Duty Metal or Precast, Replace	20	10	10	3	EA	$700.00	$945.00	$2,835											$2,835											**$2,835**
G2060	Site	7162759	Signage, Property, Monument, Replace/Install	20	5	15	1	EA	$3,000.00	$4,050.00	$4,050																$4,050						**$4,050**
G2080	Site	7162809	Irrigation System, Pop-Up Spray Heads, Commercial, Replace/Install	20	10	10	9100	SF	$1.00	$1.35	$12,285											$12,285											**$12,285**
G2080	Site	7162775	Landscaping, Mature Trees, Removal/Trimming, Repair	0	0	0	1	EA	$1,500.00	$2,025.00	$2,025	$2,025																					**$2,025**
G4050	Site	7162732	Site Walkway Fixture, Bollard Style, Surface-Mounted Metal, Replace/Install	20	10	10	10	EA	$900.00	$1,215.00	$12,150											$12,150											**$12,150**
G4050	Site	7162723	Pole Light Fixture w/ Lamps, any type 30' High, w/ LED Replacement, Replace/Install	20	5	15	3	EA	$6,800.00	$9,180.00	$27,540																$27,540						**$27,540**
G4050	Building exterior	7162805	Exterior Fixture w/ Lamp, any type, w/ LED Replacement, Replace	20	10	17	EA		$600.00	$810.00	$13,770											$13,770											**$13,770**
P2030	Interior	7162772	Engineering Study, Civil, General Design, Replace	0	0	0	1	EA	$7,000.00	$9,450.00	$9,450	$9,450																					**$9,450**
Totals, Unescalated												**$11,475**	**$0**	**$47,084**	**$91,395**	**$0**	**$663,667**	**$0**	**$4,678**	**$239,321**	**$0**	**$171,288**	**$0**	**$51,685**	**$119,273**	**$81,000**	**$619,265**	**$0**	**$11,698**	**$105,584**	**$22,410**	**$812,457**	**$3,052,278**
Totals, Escalated (3.0% inflation, compounded annually)												**$11,475**	**$0**	**$49,951**	**$99,870**	**$0**	**$769,372**	**$0**	**$5,753**	**$303,165**	**$0**	**$230,197**	**$0**	**$73,690**	**$175,156**	**$122,520**	**$964,795**	**$0**	**$19,335**	**$179,749**	**$39,296**	**$1,467,388**	**$4,511,710**

Appendix G:
Equipment Inventory List

D10 Conveying

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162786	D1010	**Passenger Elevator**	Hydraulic, 2 Floors	2500 LB	La Fetra Senior Center	Elevator	U.S. Elevator	Ascension 1000	No dataplate		000006	

D20 Plumbing

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162790	D2010	**Water Heater**	Gas, Commercial (200 MBH)	100 GAL	La Fetra Senior Center	Kitchen	Bradford White	UCG100H2703N	YJ50243098	2022	000052	
2	7162781	D2010	**Water Heater**	Gas, Residential	50 GAL	La Fetra Senior Center	Basement	Bradford White	U45036FRN	HE15024321	2011	000049	
3	7162716	D2010	**Backflow Preventer**	Domestic Water	2 IN	La Fetra Senior Center	Older Building Exterior						

D30 HVAC

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7182077	D3020	**Furnace**	Gas, 51 to 100 MBH	Inaccessible	La Fetra Senior Center	Older side attic	Inaccessible	Inaccessible	Inaccessible	2013		
2	7162739	D3020	**Furnace**	Gas	66 MBH	La Fetra Senior Center	Basement	International Comfort Products	N8MSL0701412A2	A135119702	2013	000003	
3	7162783	D3030	**Split System**	Condensing Unit/Heat Pump	5 TON	La Fetra Senior Center	Older Building Exterior	ComfortMaker	N4A560GKC101	E163108301	2016	000004	
4	7162754	D3030	**Split System**	Condensing Unit/Heat Pump	3 TON	La Fetra Senior Center	Older Building Exterior	Guardian	GAW14L36C23SA	W2A0526524	2020	000005	
5	7162742	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	3 TON	La Fetra Senior Center	Upper Roof	Lennox	KGB036S4BS2Y	5618D08665	2018	000045	
6	7162804	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	15 TON	La Fetra Senior Center	Lower Roof	Lennox	LGH180H4ML3Y	5617A02742	2017	000070	
7	7162808	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	15 TON	La Fetra Senior Center	Lower Roof	Lennox	LGH180H4ML3Y	5617A03109	2017	000068	
8	7162740	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	5 TON	La Fetra Senior Center	Upper Roof	Lennox	KGA060S4BS5Y	5616H08311	2016	000048	
9	7162750	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	4 TON	La Fetra Senior Center	Upper Roof	Lennox	KGB048S4BS1Y	5618D06020	2018	000047	
10	7162751	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	4 TON	La Fetra Senior Center	Upper Roof	Lennox	KGB048S4BS1Y	5618D06019	2018	000051	
11	7162778	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	7.75 TON	La Fetra Senior Center	Lower Roof	Lennox	KGA092S4MS3Y	5618D07073	2018	000069	
12	7162767	D3050	**Packaged Unit**	RTU, Pad or Roof-Mounted	2.5 TON	La Fetra Senior Center	Upper Roof	Lennox	KGB030S4DW1P	5618C11372	2018	000046	
13	7162788	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	Inaccessible	La Fetra Senior Center	Lower Roof	Inaccessible	Inaccessible	Inaccessible		Inaccessible	
14	7162714	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 10" Damper	Inaccessible	La Fetra Senior Center	Lower Roof	Inaccessible	Inaccessible	Inaccessible		Inaccessible	
15	7162756	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 12" Damper	No dataplate CFM	La Fetra Senior Center	Lower Roof	Loren Cook Company	Illegible	Illegible		000007	
16	7162764	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	No dataplate CFM	La Fetra Senior Center	Upper Roof	Loren Cook Company	100 ACRUB	2894665100007040497		000050	
17	7162721	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	No dataplate CFM	La Fetra Senior Center	Lower Roof	Loren Cook Company	195 VCR-HP	1385422485000003601036		000067	
18	7162741	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 16" Damper	No dataplate CFM	La Fetra Senior Center	Lower Roof	Loren Cook Company	100 ACPUB	138946 5000100007020497		000074	
19	7162807	D3060	**Exhaust Fan**	Roof or Wall-Mounted, 24" Damper	No dataplate CFM	La Fetra Senior Center	Lower Roof	Loren Cook Company	120 ASPT	1208475646-7016797		000075	
20	7162803	D3060	**Supplemental Components**	Air Curtain, 5' Wide Non-Heated		La Fetra Senior Center	Kitchen	Mars	36CH	9709PF36CH-L (F3)	1996	000063	

D40 Fire Protection

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162743	D4010	**Fire Suppression System**	Commercial Kitchen, per LF of Hood		La Fetra Senior Center	Kitchen						8

D50 Electrical

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162717	D5020	**Switchboard**	120/208 V	800 AMP	La Fetra Senior Center	Electrical room	Square D	3481S	No dataplate		000065	
2	7162738	D5020	**Distribution Panel**	120/208 V	200 AMP	La Fetra Senior Center	Older Building Exterior	No dataplate	No dataplate	No dataplate		000013	
3	7162725	D5020	**Distribution Panel**	120/208 V	400 AMP	La Fetra Senior Center	Electrical room	Square D	HCM32734	No dataplate		000066	

D70 Electronic Safety & Security

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162811	D7050	**Fire Alarm Panel**	Fully Addressable		La Fetra Senior Center	Lobby	Radionics	No dataplate	No dataplate		000062	

E10 Equipment

Index	ID	UFCode	Component Description	Attributes	Capacity	Building	Location Detail	Manufacturer	Model	Serial	Dataplate Yr	Barcode	Qty
1	7162812	E1030	**Foodservice Equipment**	Coffee Machine		La Fetra Senior Center	Kitchen	Bunn	AXI0M-15-3	AX00115051		000001	
2	7162776	E1030	**Foodservice Equipment**	Coffee Machine		La Fetra Senior Center	Kitchen	Bunn	AXI0M-15-3	AX00115988		000002	
3	7162733	E1030	**Foodservice Equipment**	Dishwasher Commercial		La Fetra Senior Center	Kitchen	Auto-Chlor	Illegible	Illegible		000055	
4	7162758	E1030	**Foodservice Equipment**	Exhaust Hood, 8 to 10 LF		La Fetra Senior Center	Kitchen	CaptiveAire Systems	5730 SCA-D-ISFP	No dataplate		000060	
5	7162722	E1030	**Foodservice Equipment**	Food Warmer, Proofing Cabinet on Wheels		La Fetra Senior Center	Kitchen	Carter-Hoffmann	FH90-0015 B	238179-FH90-00158-35K03		000059	

6	7162789	E1030	**Foodservice Equipment**	Freezer, 1-Door Reach-In	La Fetra Senior Center	Kitchen	Hoshizaki	CF1S-FS	G72879E	000057
7	7162771	E1030	**Foodservice Equipment**	Freezer, 1-Door Reach-In	La Fetra Senior Center	Kitchen	Hoshizaki	CR1S-FS	H55386E	000058
8	7162773	E1030	**Foodservice Equipment**	Garbage Disposal, 1 to 3 HP	La Fetra Senior Center	Kitchen	Salvajor	200	74182	000054
9	7162796	E1030	**Foodservice Equipment**	Icemaker, Freestanding	La Fetra Senior Center	Kitchen	Scotsman	B322S	16051320014477	000056
10	7162720	E1030	**Foodservice Equipment**	Range/Oven, 4-Burner w/ Griddle	La Fetra Senior Center	Kitchen	Imperial	No dataplate	No dataplate	000053
11	7162791	E1030	**Foodservice Equipment**	Steam Table	La Fetra Senior Center	Kitchen	Wells Mfg. Co.	M0D300D	CAF 3803	000064
12	7162736	E1040	**Healthcare Equipment**	Defibrillator (AED), Cabinet-Mounted	La Fetra Senior Center	Lobby				

Appendix H:
Energy Conservation Measures Calculations

UIC	Install Low Flow Faucet Aerators
EAP2-b	**Location**: Restrooms and common rooms
Attributes:	Replace 3x 2GPM rated kitchen aerators with 1GPM WaterSense certified aerators Replace 5x 2.2GPM rated bathroom aerators with 0.5GPM WaterSense certified aerators

Property Type:	Commercial	Estimated No. of Operational Weeks	52
		Number of Occupied Days/Week (Max 7)	5

KITCHEN FAUCETS			BATHROOM FAUCETS		
Number of Occupants Affected By Retrofit	60		Number of Occupants Affected by Retrofit	60	
Do You Want To Replace Kitchen Faucets Aerators	Yes	*(Select)*	Do You Want To Replace Bathroom Faucets Aerators	Yes	*(Select)*
Total Number of Faucet Aerators To Be Replaced	3		Total Number of Faucet Aerators To Be Replaced	5	
Total Number of Faucets To Be Replaced:	0		Total Number of Faucets To Be Replaced:	0	
GPM of Existing Faucet Aerators	2	GPM	GPM of Existing Faucet Aerators	2.2	GPM
GPM of Proposed Faucet Aerator	1	GPM	GPM of Proposed Faucet Aerator	0.5	GPM
Estimated Number of Uses Per Day	4		Estimated Number of Uses Per Day	5	

Annual Water Savings From Installing Low Flow Aerators: 18.72 kGal

WATER & ENERGY SAVING CALCULATION			COST SAVING CALCULATION		
Select Type of Water Heater Fuel:	Electric	(Select)	Property Location in United States	Southern Localities	
Energy Factor of Domestic Hot Water Heater:	0.82	EF	Heating Fuel Tariff	$0.30	$/kWh
Hot Water Discharge Temperature at Faucet	108.00	°F	Water Tariff ($/1000 Gal)	$11.18	$/kGal
Equivalent Heating Fuel Savings:	1,802	kWh	Annual Cost Savings In Form of Water	$209	$
Savings Discounted by 15% to Account For Cold Water Use					
Annual Water Savings	18.72	kGal	Annual Energy Savings From Water Heater	$538	$

COST BENEFIT ANALYSIS					
Estimated Material Cost	$64		Estiamted Labor Cost	$61	
Estimated Total Annual Cost Savings	$747	$$	Estimated Total Installation Cost	$125	$$
Simple Payback Period	0.17	Years	*Type of Recommendation*	No/Low Cost ECM Recommendation	

ECM EXPLANATION:

By reducing the flow of water coming from the restroom faucets, aerators can generate energy savings at low cost and with easy installation. The savings generated would be in the form of reduced water and sewer costs and at the same time aerators would save energy by reducing the demand for hot water. The average faucet has a flow rate of about 2 to 4 GPM. Adding a screw-in faucet aerator reduces the flow to 0.5 to 1.5 GPM in the bathroom and 2.2 GPM in the kitchen. In addition to saving energy and water, the "foamier" water that comes from faucet aerators wets objects better than water from a faucet with no aerator, which tends to bounce off the object rather than thoroughly wetting it.

BV recommends replacing the proposed faucet aerators with new low flow aerators as mentioned above. The proposed ECM shall also result in an annual energy saving in form of reduction in water heating bills.

Summary:

Initial Investment: $125 Estimated Annual Cost Savings: $747 Simple Payback Period (Yrs): 0.17

UIC	Retrofit Flush Tank Toilets to Dual Flush
EAP3	Location: Older Building
Attribute:	Retrofit 3x 1.6GPF toilets to dual-flush

EXISTING CONDITION

Total Occupants:	60	
Number of Water Closets To Be Replaced	3	
Number of Occupied Days Per Week (Max 7)	5	
Number of Occupied Weeks/Year (Max 52)	52	
Estimated Restroom Usage/Individual/Day *5.05 flushes/person/day@American Water Works Association (AWWA)*	4	(Select)

PROPOSED RETROFIT/REPLACEMENT

Existing Gallons Per Flush Ratings For Water Closet Flushes	1.60	GPF
Replace or Retrofit Toilets With Dual Flush Toilets	Retrofit	
Replace		
Proposed Toilet	-	
GPF of Proposed New Low Flow Water Closet Fixture*	-	GPF
Retrofit		
Dual Flush - Retrofit Setup Valve for Flush Tank Toilet *(Federal Law Requires All Flushes Not To Exceed 1.6 GPF)*	*Solid Waste (20%)* 1.60	GPF
	Liquid Waste (80%) 1.28	GPF

Water & Cost Saving Calculations

Water Savings By The Use of Low Flow Water Closet Flush Valves/Day			61.44	gal
Total Annual Water Savings in gallons			15.97	kgal
Cost Savings Calculations				
Enter Water Tariff Rate ($/1000Gal)			$11.18	$
Estimated Cost Savings From Water			$179	$
Estimated Cost of Retrofit				
Estimated Total Cost For Retrofit	*Material* $72	Total	$416	$
	Labor $344			
Simple Pay Back Period			2.33	Yrs
Type of Recommendation	No/Low Cost ECM Recommendation			

ECM EXPLANATION:

The highest water utilization at any home/office occurs in the restrooms. It is estimated that on an average a normal human being uses the restroom at least four times a day. Keeping with the global water conservation objectives, federal law prohibits use of any new water closet flushes over 1.6 GPF.

Existing toilets can be retrofitted with pressure-assisted flush technology to reduce the flush rate to 1.0 GPF or less. Though water efficient these toilets make considerable amount of noise as this involves release of pressurized air during the course of flushing. Thus making them unpopular among residential properties.

Thus BV recommends replacing the existing high flow toilets with new low flow 1.28GPF rated flush tank toilets, which are comparatively more water efficient at the same time considerably quiter as compared to the pressure assisted technology retrofitted toilets.

Summary:

Initial Investment:	$416			
		Simple Payback:	2.33	Years
Annual Cost Savings:	$179			

UIC	Install Low Flow Tankless Restroom Fixtures
EAP4	Location: Newer building
Attribute:	Retrofit 11x; 1.6 GPF toilets with dual-flush flush vales

ECM FOR DETERMINING WATER SAVINGS IN COMMERCIAL PROPERTIES

Number of Males	30	
Number of Females	30	
Number of Occupied Days Per Week (Max 7)	5	
Number of Occupied Weeks/Year (Max 52)	52	
Number of Urinals To Be Retrofitted	0	
Number of Water Closets To Be Retrofitted	11	
No. of Water Closets With Separate Flush Tank *(Typical Residential Type)*	0	
Estimated Restroom Usage/Individual/Day *Default is 4 Uses/Day For Residential/Office*	4	(Select)

Urinal Water Savings

Do you want to make any changes to the Urinals?	No	
Estimated Existing Use of Urinal/Day/Man	80%	
Existing Gallons Per Flush Ratings For Urinal Flushes		GPF
Proposed Urinal	-	
GPF of Proposed Urinal Flush Valve**	0.000	GPF

***(1992 EpACT Energy Act Mandates 1.0GPF Max on Urinals)*

Water Closet Water Savings

Tankless Water Closets

Do you want to make any changes to the Water Closets?	Yes	
Existing Gallons Per Flush Ratings For Water Closet Flushes	1.60	GPF
Are The Existing Water Closet Being Replaced? *(If No; Then Only The Flush Valve Would Be Replaced With Dual Flush Retrofit Kit)*	No	
No. of Tankless Water Closets	11	
GPF of Proposed Dual Flush- Water Closet Valve* *(Federal Law Requires All Flushes Not To Exceed 1.6 GPF)* — *Solid Waste (20%)*	1.60	GPF
Liquid Waste (80%)	0.48	GPF
Estimated Annual Water Savings From Male Users	27.96	kGal
Estimated Annual Water Savings From Female Users	27.96	kGal

Water & Cost Saving Calculations

Water Savings Calculation

Water Savings By The Use of Low Flow Water Closet Flush Valves/Yr	55.91	kgal
Water Savings By The Use of Low Flow Urinal Flush Valves/ Yr	0.00	kgal
Total Annual Water Savings in kgal	55.91	kgal

Cost Savings Calculations

Enter Water Tariff Rate ($/1000Gal)	$11.18	
Estimated Cost Savings From Water	$625	

Estimated Cost of Retrofit

Material Cost for Low Flow Urinal(s)	$0	
Labor Cost for Installing New Urinal(s)	$0	
Material Cost For Replacing Existing Flush Valves With Low Flow - Dual Flush Valves	$880	
Labor Cost For Water Closet *(Up For Liquid Waste And Down For Solid Waste)*	$1,260	
Estimated Total Cost For Retrofit	$2,140	
Simple Pay Back Period	3.42	Yrs
Type of Recommendation	Capital Cost ECM Recommendation	

ECM EXPLANATION:

The highest water utilization at any home/office occurs in the restrooms. It is estimated that on an average a normal human being uses the restroom at least four times a day. Keeping with the global water conservation objectives, federal law prohibits use of any new water closet flushes over 1.6 GPF. At the same time the '1992 EpACT' mandates all new Urinals to have a maximum 1.0 GPF flush valves on urinals.

BV recommends replacing all urinals above 1.0 GPF with a new 0.5 GPF or lesser urinals. At the same time BV also recommends replacing all the water closets having a GPF rating of 1.6 and over with low flow water closet fixtures equipped with dual flush valves.

In case the property doesn't wish to replace the entire water closet fixtures, BV recommends retrofitting all the tankless water closet flush fixtures with new dual flush fixtures that would result in a 30% water savings per flush for liquid wastes, while retaining the same flush rate for solid wastes.

SUMMARY:

Initial Investment:	$2,140	Simple Payback Period:	3.42 Yrs
Annual Cost Savings:	$625		

UIC	Upgrade Split Heating and Cooling System
EAH12-A	Location: Basement and Attic
Attributes:	Replace (2x) 66MBH Heating System With 96% AFUE Gas Fired -60MBH System;

Basement and Attic

Heating System								
Number of Heating Systems to be replaced	2	Qty		Qty		Qty		Qty
Heating Fuel:	Natural Gas		-		-		-	
Heating System Capacity (Each)	66	MBH		MBH		MBH		MBH
De-rated AFUE rating For **Eac**h Furnace Heating System	78%	%		%		%		%
Estimated Annual Operating Hours:	1,070	Hrs		Hrs		Hrs		Hrs
Estimated Annual Energy Use from All Heating Systems	1,412	Therms	0	-	0	-	0	-
Cooling								
Are Cooling Split Systems Being Replaced?	No		No		No		No	
Refrigerant in Cooling System								
Number of Existing Air Conditioners		Qty		Qty		Qty		Qty
Insert Cooling Capacity of **Each** Existing Air-Conditioner		Btuh		Btuh		Btuh		Btuh
Please Input The Existing EER of The Air-Conditioner:		EER		EER		EER		EER
Estimated Annual Operating Hours:		Hrs		Hrs		Hrs		Hrs
Energy Consumption From All Existing Air conditioner:	0	kWh	0	kWh	0	kWh	0	kWh

Proposed System

Heating								
Select Proposed Heating System	Gas Fired -60MBH		-		-		-	
AFUE for the Proposed Heating System:	96%	%	-	%	-	%	-	%
Estimated Energy Consumption From All Systems:	1,148	Therms	0	-	0	-	0	-
New Annual Hours of Operations:	956	Hrs	0	Hrs	0	Hrs	0	Hrs
Cooling								
Select Proposed Air Conditioner Type:	-		-		-		-	
Btu/Hr of The New Air-Conditioner:	-	Btuh	-	Btuh	-	Btuh	-	Btuh
EER of Proposed Air-Conditioning System:	-	EER	-	EER	-	EER	-	EER
Total Energy Consumption For Proposed Air conditioner:	0	kWh	0	kWh	0	kWh	0	kWh
Install New Fan Coil Unt	No		No		No		No	

If Existing system has R-22 then install new Fan Coil

Savings Analysis

Annual Energy Savings From Heating Systems:	26,483	kBtus	0	kBtus	0	kBtus	0	kBtus
Annual kWh savings for all Air conditioner:	0	kWh	0	kWh	0	kWh	0	kWh
Installed Cost For All Air conditioner:	$0		$0		$0		$0	
Installed Cost For all Fan Coils + New Refrigerant Lines	$0		$0		$0		$0	
Installed Cost for all Heating Systems	$3,773		$0		$0		$0	
Total Investment	$3,773		$0		$0		$0	
Estimated Annual Energy Cost Savings:	$593		$0		$0		$0	

	Natural Gas		Propane		No.2 Oil		Electric	
Total Utility Savings	265	Therms	0	Gal	0	Gal	0	kWh

Total Initial Investment:	$3,773	**Total Annual Utility Cost Savings:**	$593
Simple Payback:	6.36	Yrs	
Type of Recommendation	Capital Cost ECM Recommendation		

ECM DESCRIPTION:

Advances in compressor and condenser technology have allowed for the development of more efficient air conditioning systems. As a result cooling can be provided at the same rate, with a lower energy input. Energy efficiency ratio (EER) is the ratio of cooling output to power input. Seasonal energy efficiency ratio (SEER) is an adjusted figure based on the length of the cooling season. A higher EER or SEER indicates a more efficient unit which can provide the same cooling capacity while consuming less energy. The minimum standard for air conditioner performance in most areas is currently 13 SEER as required by the 2006 International Energy Conservation Code. Units rated at 16 SEER (14 EER) or better qualify for Energy Star certification.

BV recommends replacing all the identified air conditioners with the new proposed high efficiency air conditioners as mentioned above.

Summary:

Initial Investment: $3,773 Simple Payback: 6.36 Yrs

Energy Cost Savings: $593

Appendix I:
Lighting System Schedule

Note : All lighting has been upgraded to LED

Appendix J:
Energy Audit Glossary of Terms

Glossary of Terms and Acronyms

ECM – Energy Conservation Measures are projects recommended to reduce energy consumption. These can be No/Low cost items implemented as part of routine maintenance or Capital Cost items to be implemented as a capital improvement project.

Initial Investment – The estimated cost of implementing an ECM project. Estimates typically are based on R.S. Means Construction cost data and Industry Standards.

Annual Energy Savings – The reduction in energy consumption attributable to the implementation of a particular ECM. These savings values do not include the interactive effects of other ECMs.

Cost Savings – The expected reduction in utility or energy costs achieved through the corresponding reduction in energy consumption by implementation of an ECM.

Simple Payback Period –The number of years required for the cumulative value of energy or water cost savings less future non-fuel or non-water costs to equal the investment costs of the building energy or water system, without consideration of discount rates.

EUL – Expected Useful Life is the estimated lifespan of a typical piece of equipment based on industry accepted standards.

RUL – Remaining Useful Life is the EUL minus the effective age of the equipment and reflects the estimated number of operating years remaining for the item.

SIR - The savings-to-investment ratio is the ratio of the present value savings to the present value costs of an energy or water conservation measure. The numerator of the ratio is the present value of net savings in energy or water and non-fuel or non-water operation and maintenance costs attributable to the proposed energy or water conservation measure. The denominator of the ratio is the present value of the net increase in investment and replacement costs less salvage value attributable to the proposed energy or water conservation measure. It is recommended that energy-efficiency recommendations be based on a calculated SIR, with larger SIRs receiving a higher priority. A project typically is recommended only if the SIR is greater than or equal to 1.0, unless other factors outweigh the financial benefit.

Life Cycle Cost - The sum of the present values of (a) Investment costs, less salvage values at the end of the study period; (b) Non-fuel operation and maintenance costs: (c) Replacement costs less salvage costs of replaced building systems; and (d) Energy and/or water costs.

Life Cycle Savings – The sum of the estimated annual cost savings over the EUL of the recommended ECM, expressed in present value dollars.

Building Site Energy Use Intensity - The sum of the total site energy use in thousands of Btu per unit of gross building area. Site energy accounts for all energy consumed at the building location only not the energy consumed during generation and transmission of the energy to the site.

Building Source Energy Use Intensity – The sum of the total source energy use in thousands of Btu per unit of gross building area. Source energy is the energy consumed during generation and transmission in supplying the energy to your site.

Building Cost Intensity - This metric is the sum of all energy use costs in dollars per unit of gross building area.

Greenhouse Gas Emissions - Although there are numerous gases that are classified as contributors to the total for Greenhouse Emissions, the scope of this energy audit focuses on carbon dioxide (CO_2). Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement).