# Palm Coast Fire Station 22

## Evaluation of Existing Fire Station 22

SCHENKELSHULTZ

ARCHITECTURE

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# SECTION 1

# EVALUATION

## 1.0 Introduction

The City of Palm Coast commissioned the design team, led by Schenkel Shultz to develop an evaluation of the existing Fire Station 22 of the city of Palm Coast. The evaluation team consists of:

Schekel Shultz/ Architecture

Zev Cohen/ Site and Civil

BBM/ Structural

OCI/ MEP

The purpose of the evaluation is to determine the current condition of the fire station and its suitability for future use in different capacity. The evaluation that follows is based on the observations the design team performed while on site at Fire station 22 on 4/17/2023 . This report is to aid the Owner in determining the station's future use.

### 1.1 Site Evaluation

PROPERTY IDENTIFICATION

Palm Coast Fire Station #22 is located at 307 Palm Coast Pkwy NEW, Palm Coast, FL 32137.

The property is located on the south-east corner of Club House and Palm Coast Pkwy, a viable corner with high visibility.

The property is developed with a 2991 SQFT one-story stucco building built in 1977 as the first fire station in Palm Coast.

The property has 14 parking spaces and 1 handicap space.

Parcel ID(s):

Parcel ID # 41-11-31-0000-01010-0010

Total Project Acres = .99 acres

## LAND USE & ZONING

### Existing Future Land Use

The Future Land Use is designated Institutional on the Future Land Use Map and described as *Institutional* in the 2025 City of Palm Coast Comprehensive Plan.

The FLUM designation of Institutional identifies areas for public and private educational uses, public buildings, offices limited to supporting institutional uses, hospitals, civic uses, churches and religious venues, public safety, service and social clubs, public and private recreational uses, open space, greenways, and transportation and utilities including, but not limited to, water and sewer plants.

### Current Zoning Classification and Overlay

The Zoning designation is PSP Public Semipublic District

The purpose of the Public/Semipublic District is to provide areas for government owned facilities, religious institutions, civic buildings, community club facilities, educational/vocational facilities, nonprofit organization facilities, and essential public services including, but not limited to, transit facilities, water and sewer utility plants and related facilities, and electrical power substations.

## PALM COAST CORRIDOR OVERLAY

The property is within the Palm Coast Parkway Overlay Zone and minimum and maximum lot dimensions are noted blow.

The purpose of the overlay is to impose additional standards for new construction of nonresidential and multifamily development within its boundaries. The Palm Coast Parkway overlay zone is intended to:

1. Provide additional access management controls to ensure that Palm Coast Parkway develops into an attractive functional roadway corridor meeting the needs of vehicles and pedestrians.

2. Prevent disjointed, disorganized development caused by unplanned and uncoordinated building layout and design.

ALLOWED USES AND LOT DIMENSIONS

| Allowed Uses for PSP Public Lands | | |
|---|---|---|
| Civic Uses, town hall, libraries, museums, police, fire, postal, service | | |
| Hospice services, hospitals, houses of worship, non-profit | | |
| Cafeterias, coffee and donuts ops, snack bars, sandwich shops, delicatessens, bakeries | | |
| Elementary/secondary schools | | |
| Colleges/universities | | |
| Public parks and recreation facilities | | |
| Stadium, athletic/sports arena | | |
| Assisted living | | |
| Training facilities: auto driver schools, trade school, heavy equipment driving school | | |
| Municipal pump station, power generation & distribution, public works facilities | | |
| Dimensional Requirements | | |
| Dimensions | Lot size: | 20,000 square feet |
| | Width | 100’ feet |
| | Front, Rear, Side yard* | 10 feet (*except if on arterial/collector/local road) |
| | Max building height | 50 feet (per Palm Coast Pkwy overlay zone) |
| *Minimum Setbacks from Streets | *Arterial/Collector | 25’ |
| | *Local Road | 20’ |
| Maximum Impervious Surface | | .70 |
| Maximum Floor Area Ratio | | .30 |

SURROUNDING LAND USE AND ZONING

The property is surrounded to the north by 1.50 acres of developed property, consisting of a one-story 5408 SQ FT commercial building, zoned COM 2.

The property to the south abutting the property is 0.18 acres (7689 SQ FT) of vacant land that is part of the Fire District parcel (42' wide on Clubhouse and 180' deep) zoned P&G.

The property to the east is 0.82 acres of undeveloped land, zoned P&G.

The property on the southwest corner of Clubhouse and Palm Coast Pkwy NE is 4.79 acres, developed property consisting of a one-story 20,801 SQ FT Community Center, zoned PSP.

The property is located on the northwest corner of Palm Coast Parkway, west of Clubhouse is 0.74 acres of developed land zoned OFC-2.

TREE PRESERVATION

Developments shall be designed to the greatest extent possible to protect existing trees and their tree protection zones from stormwater facilities, drainage lines, utilities, grade changes, building footprints, parking areas, drives, and walkways.

*Protected trees defined.* All trees that meet the following criteria are protected, except for invasive species and/or species not suited to this area per the United States Department of Agriculture hardiness list:

A. The trunk is six inches or greater diameter.

B. Trees with a trunk four inches or greater diameter, if surveyed for credit.

C. Specimen trees, which are any protected trees with a trunk of 24 inches or greater diameter except for sand pines; however, the following species are considered specimen trees when they reach one of the following:

1. Twelve inches or greater diameter: Cypress, Magnolia, Loblolly Bay, Red Bay, Scrub Oak, and Red Cedar.

2. Eighteen inches or greater diameter: Elm, Hickory, Oak, Green Ash, Sycamore, Date Palm, and Maple.

D. Historic trees, which are any protected trees with a trunk of 36 inches or larger diameter.

Should the building remain and be repurposed no changes are required, and existing trees shall remain.

Should the property be redeveloped to the greatest extent possible, trees that meet the criteria listed are to be protected from stormwater facilities, utilities, drainage lines, grade changes, building footprints, parking areas, drives, and drives.

*Quercus virginiana* (live oak) shall be used as the street trees.

ENGINEERING

*Flood Zone*

The site is not located in the flood zone so no impacts or considerations with the proposed development exist.

*Utility Availability*

*Water and Sewer*

Water and sewer are both available at the property and serving the existing Fire Station. Minor modifications would be expected if the building is repurposed, but complete removal of the services will likely be required if the site is converted to a support parking lot.

*Drainage*

The existing site pre-dates the standard SJRWMD permitting regulations and as such any redevelopment of the site will likely be required to improve the site in such a way to meet current codes and regulations. These improvements include treatment of runoff and potential attenuation controls. The redevelopment of the site will likely result in the use of traditional stormwater measures such as wet detention areas, dry retention, and/or underground exfiltration. The stormwater requirements will improve the environment over the current conditions while not burdening the site with development costs above and beyond typical site development.

The above stormwater improvements may be minimized if the existing site generally remains as is, but a complete stormwater upgrade will be required if the site is converted to a support parking lot.

*Parking/Driveway Conditions*

The existing facility is dated, and the asphalt vehicular access areas will likely need to be milled and resurfaced at a minimum for any reuse of the existing building. The concrete access area on the north side is unique to the fire station and its function as an Emergency Response entity so modifications to the access onto Palm Coast Parkway will likely be required to narrow/eliminate the access. Additional investigation into access will be required with the final determination of the use. In general, the existing

parking facilities can be repurposed if the building is to remain but will likely be completely redesigned if the property is used as a parking lot to support the adjacent public facilities.

ENVIRONMENTAL

ZCA staff scientists conducted a site visit on April 24, 2023 to evaluate the site for wetlands, surface waters, and the potential presence of protected species. A portion of the site has been developed as an existing Fire Station with associated infrastructure and the remainder is undeveloped with contains forested upland areas and a surface water (Habitat Map, Surface Water Map). No wetlands were observed onsite.

*Undeveloped parcels:*

The uplands on the undeveloped parcels consist of a canopy of live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*), dahoon holly (*Ilex cassine*), southern red cedar (*Juniperus virginiana*), and hackberry (*Celtis laevigata*). The subcanopy consists of cabbage palm, dahoon holly with a groundcover of American beautyberry (*Callicarpa americana*), cat briar (*Smilax spp*.), muscadine grape (*Vitis rotundifolia*), and cogon grass (*Imperata cylindrica*).

The undeveloped areas also had a surface water present (Surface Water Map). The surface water observed had a forested edge of laurel oak, hackberry, dahoon holly, American elm (*Ulmus americana*), and a sub-canopy of sparse Carolina willow (*Salix caroliniana*). This surface water is approximately 0.11 acres and appears to connect to the north and south via culverts. This surface water does not appear to be previously permitted by the St. Johns River Water Management District (SJRWMD), therefore, additional permitting and mitigation may be required if impacts are planned.

Additional permitting may also be required by the Florida Department of Environmental Protection (FDEP) under the State Section 404 program for surface water impacts.

*Developed parcels:*

The developed parcels consist of a previously developed building and associated infrastructure, including paved parking areas. There is a canopy of large live oaks and a ground cover of turf grass and various landscaped plants.

A historic tree survey was conducted on the property to survey trees that meet at the size and characteristics of historic trees as defined by the City of Palm Coast's Land Development Code. All trees larger than 36 inches in diameter were verified to a size and species level and their locations were taken using a differential GPS. One historic tree was observed with a 45-inch diameter (Historic Tree Map). Additional permitting and mitigation may be required if the historic tree is proposed for impact.

No wetlands or surface waters were observed on the developed parcels.

All of the habitats on site within the developed and undeveloped parcels were evaluated for the potential presence of protected species. The presence of gopher tortoises (*Gopherus polyphemus)* is possible within the uplands. No gopher tortoise burrows were observed during the site inspection, however, a 100% survey was not conducted. A 100% gopher tortoise survey by a Florida Fish and Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent will be required 90 days prior to construction. If any gopher tortoise burrows are observed onsite, additional gopher tortoise permitting and relocation may be required.

The onsite surface water may provide habitat for wading birds, including the wood stork (*Mycteria americana*). The site lies outside of a Core Foraging Area (CFA) for the wood stork, therefore, no further permitting or mitigation for impacts to the species is expected. No other listed species are anticipated to occur on this site.

The Audubon Florida Eagle Watch Nest Locator website was reviewed on April 24th, 2023 and the closest known bald eagle nest (NEST ID #FL016) is located 0.71 miles to the northeast. No eagle nests were observed on or near the site. Since no known eagles nest occur within 660', development should not be constrained by the bald eagle.

If the current building remains and is repurposed, no additional protected species surveys, environmental assessments, wetland delineations, or wetland mitigation is expected to occur. If development is expanded and redeveloped, additional protected species surveys, environmental assessments, wetland delineations, or wetland mitigation may be required. If surface water impacts are expected to occur, additional permitting and mitigation may be require by the SJRWMD and FDEP.

GIS MAPPING

*Please See Exhibit A*

Aerial Map

Surface Water Map

Soils Map

Historic Tree Map

LIDAR Map

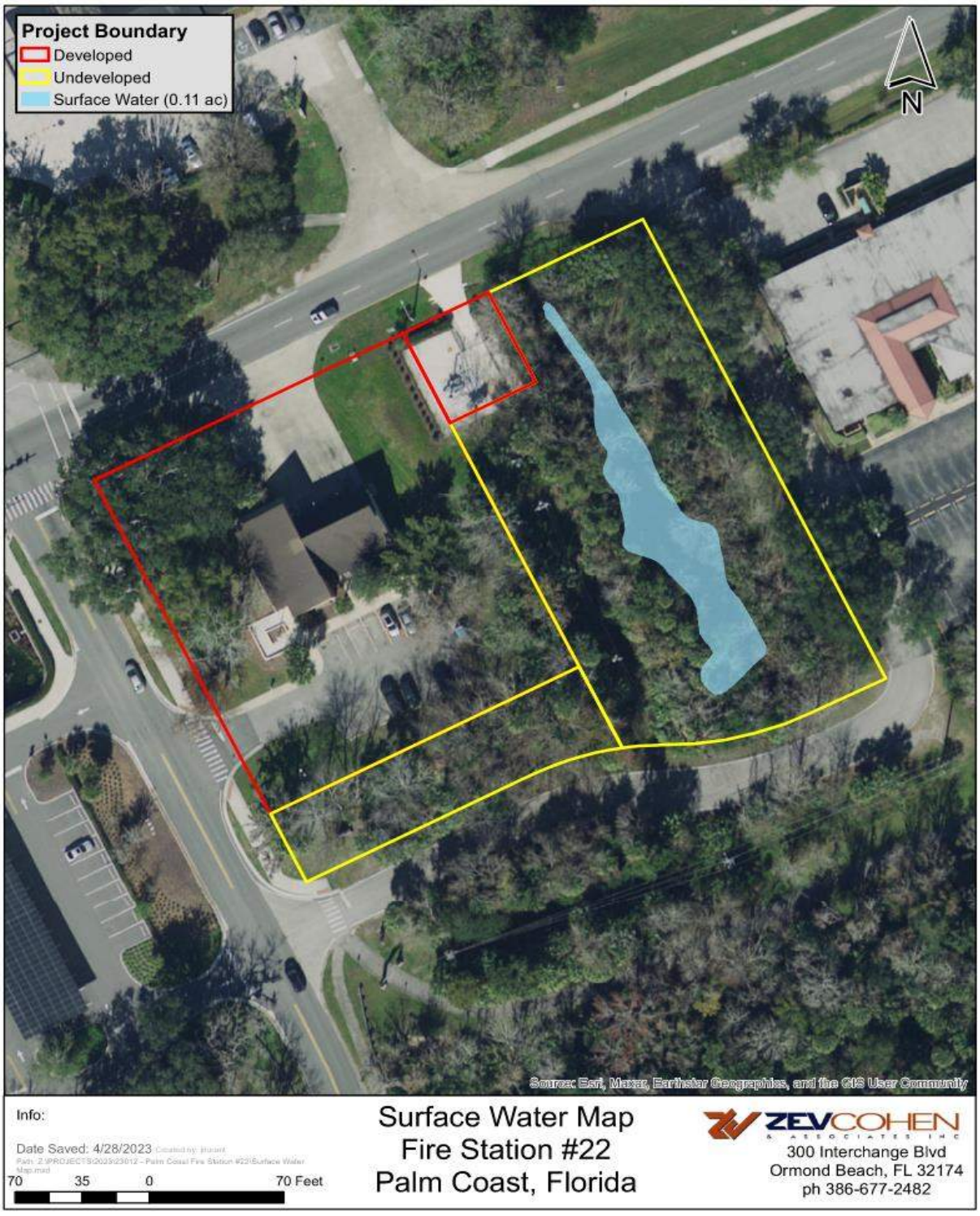
FEMA Flood Map

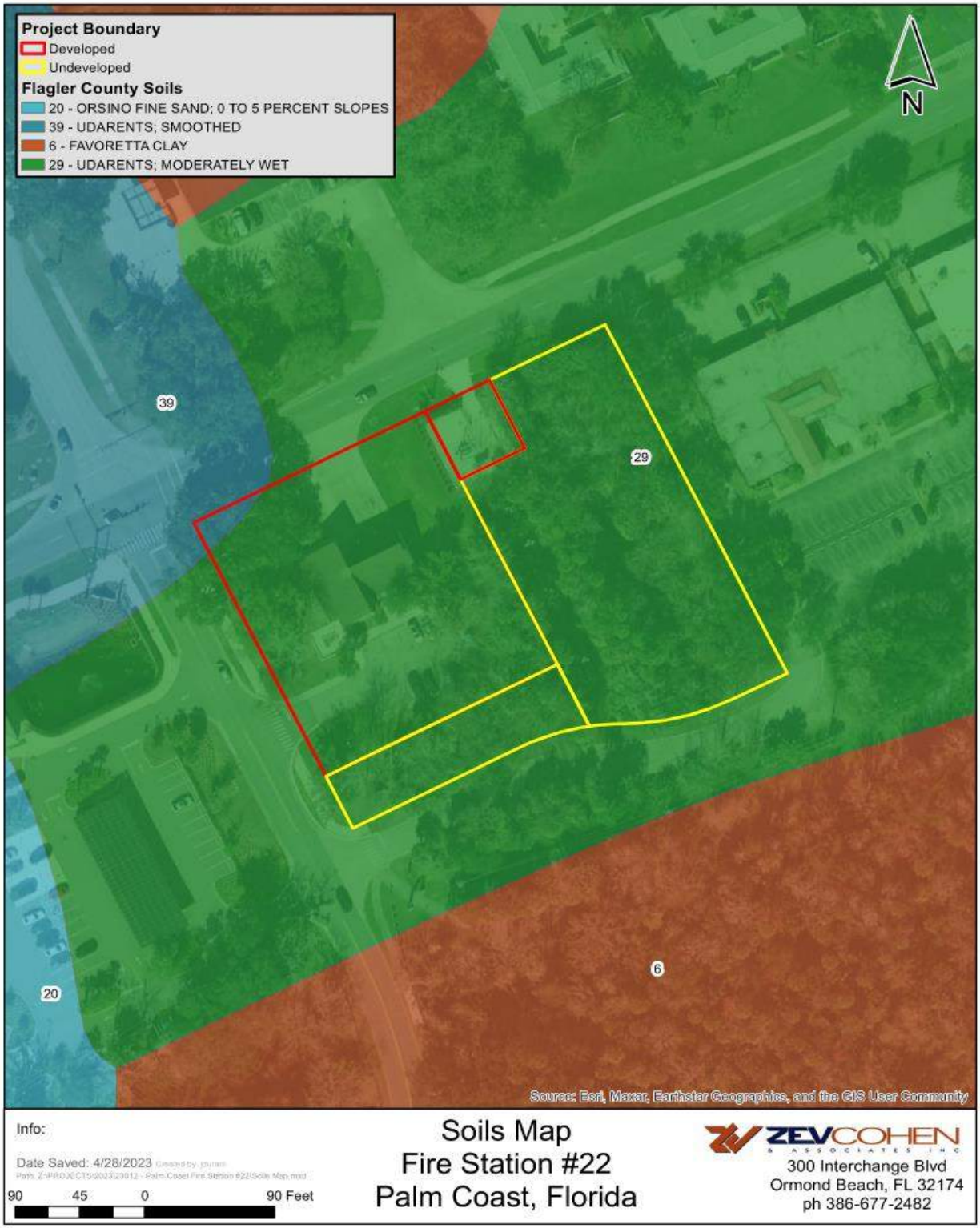
Habitat Map

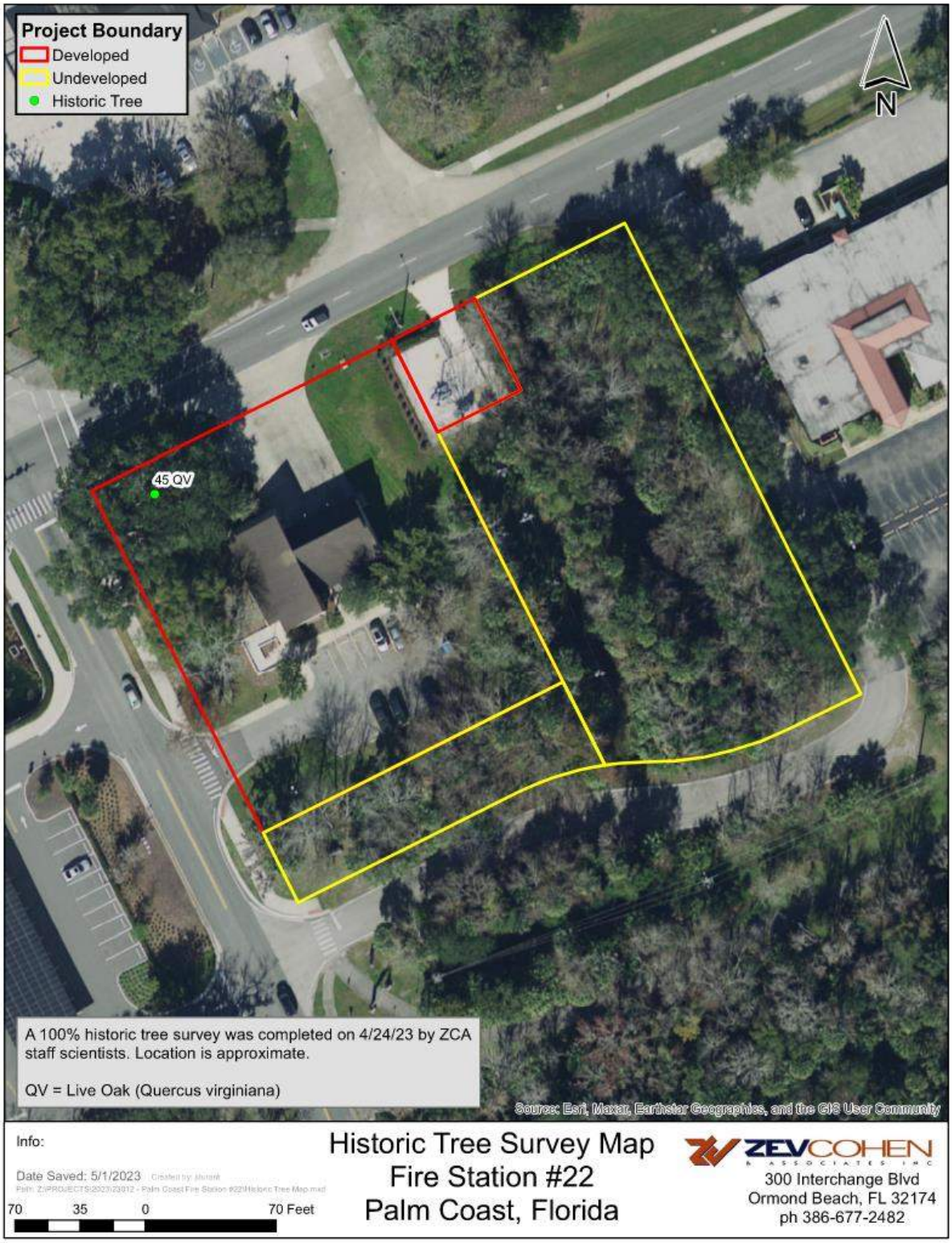
PHOTOS

*Please See Exhibit B*

EXHIBIT A – GIS MAPS


Project Boundary
Developed
Undeveloped
Surface Water (0.11 ac)
N
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 4/28/2023
70 35 0 70 Feet
Surface Water Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482


Project Boundary
Developed
Undeveloped
Flagler County Soils
20 - ORSINO FINE SAND; 0 TO 5 PERCENT SLOPES
39 - UDARENTS; SMOOTHED
6 - FAVORETTA CLAY
29 - UDARENTS; MODERATELY WET
N
39
29
6
20
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 4/28/2023
90 45 0 90 Feet
Soils Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482


Project Boundary
Developed
Undeveloped
Historic Tree
N
45 QV
A 100% historic tree survey was completed on 4/24/23 by ZCA staff scientists. Location is approximate.
QV = Live Oak (Quercus virginiana)
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 5/1/2023
70 35 0 70 Feet
Historic Tree Survey Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482


Project Boundary
Developed
Undeveloped
N
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 4/28/2023
110 55 0 110 Feet
LiDAR Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482


Project Boundary
Developed
Undeveloped
FIRM Panels
Cross-Sections
Flood Hazard Boundaries
Line Type
Limit Lines
SFHA/ Flood Zone Boundary
Flood Hazard Zones
Zone Type
1% Annual Chance Flood Hazard
Regulatory Floodway
Special Floodway
Area of Undetermined Flood Hazard
0.2% Annual Chance Flood Hazard
Future Conditions 1% Annual Chance Flood Hazard
Area with Reduced Risk Due to Levee
Area with Risk Due to Levee
N
PANEL
12035C0137E
eff. 6/6/2018
Zone AE
PANEL
12035C0137E
eff. 6/6/2018
Zone AE
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 4/28/2023
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Flood Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482

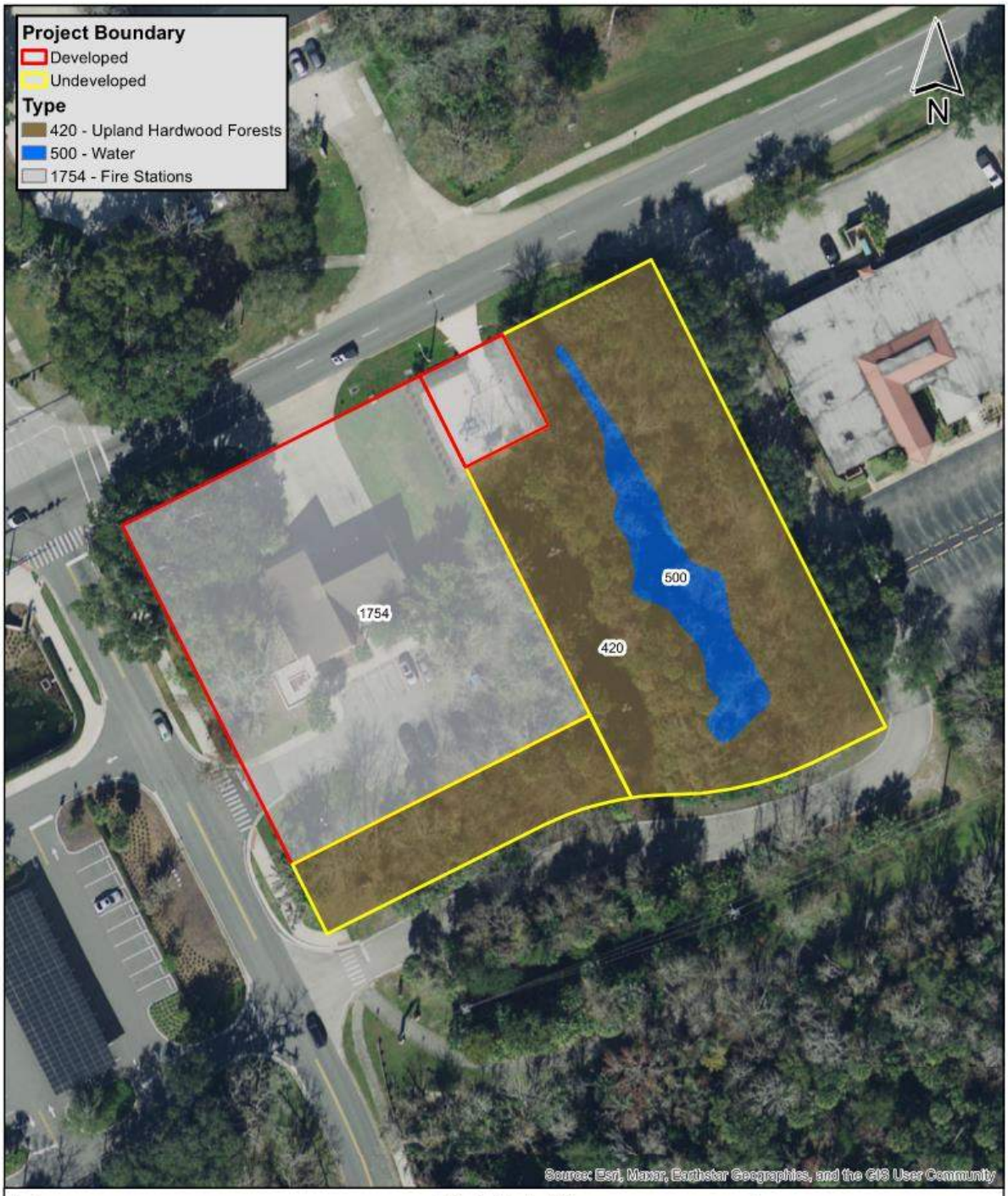

Project Boundary
Developed
Undeveloped
Type
420 - Upland Hardwood Forests
500 - Water
1754 - Fire Stations
N
1754
420
500
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Info:
Date Saved: 4/28/2023
75 37.5 0 75 Feet
Habitat Map
Fire Station #22
Palm Coast, Florida
ZEVCOHEN
300 Interchange Blvd
Ormond Beach, FL 32174
ph 386-677-2482

EXHIBIT B – PHOTOS - EXISTING CONDITIONS

*East side of property undeveloped land*

*Undeveloped land facing southeast.*

*Stormwater swale north and east property boundary Palm Coast Pkwy NE*

*14 parking spaces 1 handicap space*

## 1.2 MEP Evaluation

PLUMBING

The existing plumbing system serving the building consists of Sanitary sewer and vent, Domestic water system. The said system is per conventional plumbing standards and appears to be in an acceptable working condition. The typical useful service life for plumbing sanitary and domestic water is 40 to 50 years which appears to leave this building with 10 to 20 useful years remaining.

Plumbing Fixtures:

The plumbing fixtures in the bathrooms appear to be in fair condition. The typical useful service life for toilet fixtures is 15 to 20 years which appears to leave this building with 5 to 10 more useful years.

The Washer and Dryer set up in the Bay is an afterthought and has been added with engineering support. The entire set up needs to be engineered and installed properly.

The Laundry tub (service sink) is in poor condition with rust and stain. The tub seems to have passed its useful life.

The floor drains in Apparatus bay are in poor condition and have passed their useful life expectancy.

IMG_4354: Toilet and Lavatory

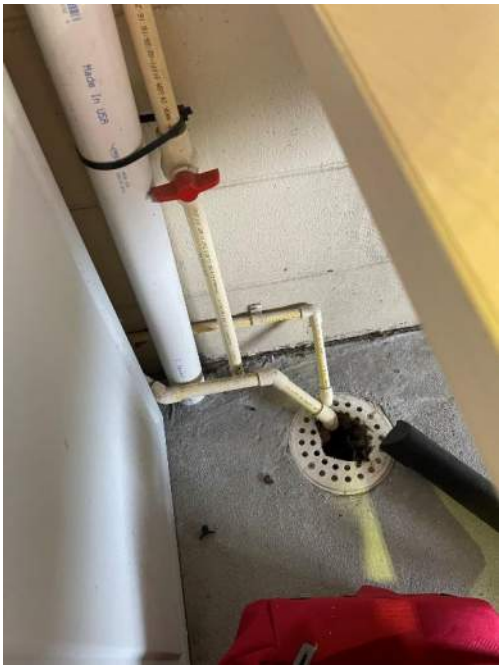
IMG_4359: ADA Bathroom

IMG_4366: ADA Shower

IMG_4304: Laundry Tub (Service sink) rusted and stained.

IMG_4460: Wash Box is in poor condition

IMG_4297: Area Drain



IMG_4467: Floor Drain needs replacement.

Water Heater:

The existing water Heater appears to be in fair working condition.

IMG_4305: Electric Water heater in fair working condition

Piping:

The above ground domestic water has been modified in some areas to accommodate for added equipment. These additions apparently have not been designed or engineered properly. Additional

IMG_4460: Laundry Wash box in poor condition

IMG_4342: Unprotected Domestic water piping for Icemaker subject to mechanical damage

HVAC

Air Conditioning System:

The air conditioning system serving the building consists of a single direct expansion (DX) split system. The Trane 7-1/2 ton system is estimated to have been installed in midyear 2016 making the equipment roughly 7 years old. The system appeared to be functioning properly at the time of the site verification. The air handling unit (AHU) is installed within the unconditioned apparatus bay. As a result, mildew and growth is visible on the exterior of the AHU housing. The housing on the condensing unit appeared to be in good condition, however some evidence of corrosion could be observed on the condenser coil. The typical useful service life for a DX air handling units is 15 to 20 years which leaves 8 to 10 years remaining. However, the proximity to the saltwater coast would greatly reduce the anticipated life expectancy for the AHU since it is installed within an unconditioned ventilated space. Similarly, the useful service life for the condensing unit is typically 8 to 12 years in this environment and would most likely require replacement in the near future. Another consideration for the air conditioning system is the pending refrigerant phase out where the R-410A the system utilizes will phased out in January of 2025. The planned replacement refrigerant for R-410A is a flammable material such as R-454B or R-32. When the condensing unit is required to be replaced within the next few years, the entire system will be required to be replaced including the air handling unit.

IMG_4310: AHU showing visible mildew growth on the housing

IMG_4317: Corrosion visible on condensing unit coil

There is a supplemental portable air conditioning unit installed in the bunk room with the heat exhaust duct extending up through the ceiling into the attic space. It would be recommended to remove this unit and upgrade the central system to properly condition the building.

IMG_4442: Supplemental portable ac unit in bunk

IMG_4441: Heat discharge from portable unit extending through ceiling into attic

The duct distribution system consists of typical residential type layout using flexible ducts and small ductboard supply plenums. There were no visible failures in the duct system, however the installation would not be appropriate for a commercial application and it would be recommended to be replaced with a rigid supply and return duct system for building longevity. Depending on the type of use for the building in the future, it may be desirable to provide some sort of zone control to the various spaces.

IMG_7885: Spaghetti flex duct distribution

The air terminals throughout were in various conditions. Many had been replaced and others were clearly showing their age. It would be recommended to replace all air terminal units throughout if the building were to be reused or repurposed.

IMG_4441: Damaged supply diffuser

Apparatus Bay:

An exhaust system has been added since the original construction to include low air inlets. There are four vertical ducts extending down to the floor with grilles at the floor elevation. These are connected to an in-line fan in the attic which discharges to a louver on the east side of the apparatus bay. A louver installed in the clearstory window framing on the north side is ducted to the ceiling of the apparatus bay for make-up air. The fan and ductwork all appeared to be in good condition. The nameplate data off of the exhaust fan was not available to determine the equipment age. A visual inspection would estimate the fan would have roughly 10-15 years of useful service life remaining.

IMG_4287: Vertical exhaust ducts extending down to floor in apparatus bay

IMG_7886: Apparatus bay exhaust fan discharging to louver in east wall

IMG_0766: Exhaust louver on east wall and make-up air louvers in clearstory window

There is an abandoned wall mounted fan on the east wall of the apparatus bay that should be removed.

IMG_4326: Abandoned fan on east wall

Two electric unit heaters were installed at some point in 2017. They appeared to be functional and in good condition. The anticipated useful service life for a unit heater is 13 years per the ASHRAE Equipment Life Expectancy Chart which would leave roughly 7 years.

IMG_4292: Electric unit heater in the apparatus bay

ELECTRICAL

Power Distribution:

The Fire Station 22 Building was constructed in 1976. The electrical service is 120/208 volt, 3 phase. A 400 amp disconnect switch is located within the electrical room along with the Main Distribution Panel (MDP) and branch circuit Panel A. These panels, manufactured by ITE are over 45 years old and have reached their useful life span.

IMG_4262: Electrical room main disconnect, MDP, Panel A and ATS

IMG_4277: Rusting conditions on 45 year old panels

Generator Power Distribution:

The generator system is fed from an Olympian(Caterpillar) 75kW diesel generator. It appears to have been installed in 2003. There is a Katolite Automatic Transfer Switch (ATS) located next to the MDP that provides generator power to a partial portion of the 400 amp service. The generator is rated for approximately 250 amps. This system does not meet the current code for Life Safety lighting. The generator appears to be in satisfactory condition and is approximately 20 years old. The generator and ATS should be salvaged for reuse. There were some 2 head emergency lights added to provide life safety emergency lighting.


IMG_4279: ATS enclosure

IMG_4281: ATS interior


IMG_4323: Generator and diesel fuel tank


IMG_4416: Generator nameplate


IMG_4418: Generator control panel

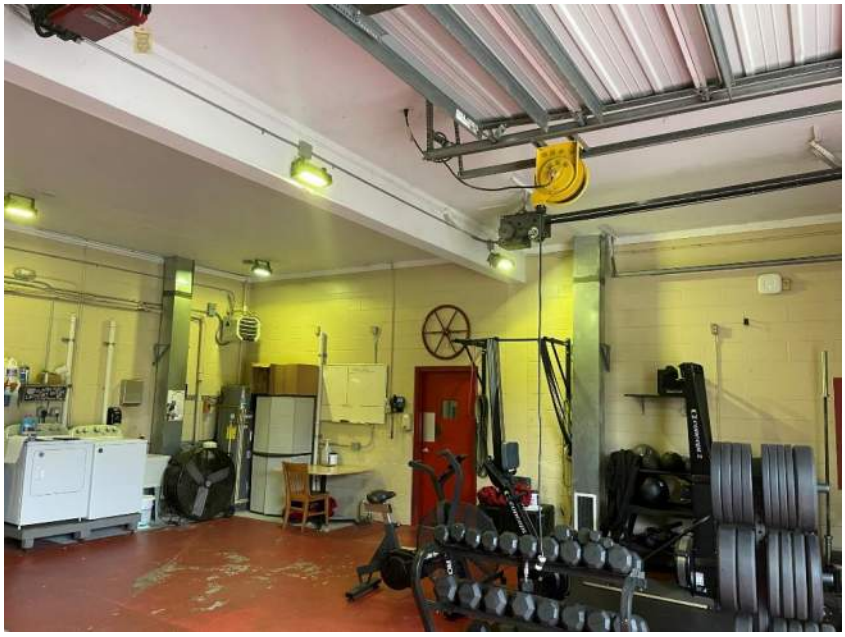
IMG_4420: Generator interior

Lighting:

The existing lighting system consists of mostly original 1976 fluorescent T12 and T8 lamp technology replaced with retrofit type LED lamps. These lights are in poor condition. The apparatus bay has been retrofitted with LED floodlights that seem to create a lot of glare.

Replacing with energy efficient LED technology would improve energy costs.

There are no automatic occupancy sensor type switches within the building.



IMG_4288: Apparatus Bay LED floodlights


IMG_4301: Added emergency light

IMG_4378: LED retrofit of original light fixture

IMG_4389: Day room lighting

IMG_4421: Bunk room lighting

IMG_4423: Bunk room added emergency lighting

Site Lighting:

The site and parking area is illuminated with building mounted light fixtures and a pole mounted light fixture. These fixtures are of different varieties added at different stages of renovation. There is one steel pole site light and one wood pole site light. Recommend replacement of all.


IMG_4332: Building mounted lights of various types

IMG_4336: Steel pole mounted light

IMG_4350: Wood pole mounted lights

Wiring Devices:

The wiring devices branch circuits were installed in the 1976 construction and are in poor condition. Many devices have been replaced but some faceplates are cracked/damaged. There may not be any ground conductors installed within these branch circuits which does not meet current code. There are not as many outlets installed in 1976 as are needed. There were many plugstrips being utilized. Within the Apparatus Bay, there were numerous outlets installed utilizing exposed surface conduit.

IMG_4383: Cracked/damaged faceplate

IMG_4403: Cracked/damaged faceplate


IMG_4456: Not enough outlets in Lieutenant bunk


IMG_4301: Apparatus Bay surface conduits

IMG_4386: Not enough outlets in kitchen


IMG_4432: Not enough outlets in bunks

Fire Alarm:

There is no fire alarm system installed within the building. However, there are stand alone smoke detectors installed within the building. A fire alarm system is strongly recommended.

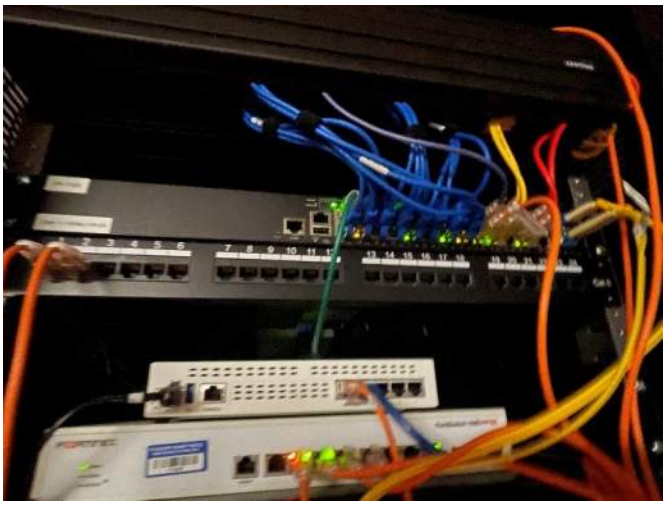
IMG_4380: Stand alone smoke detector in Dayroom

IMG_4422: Stand alone smoke detector in bunk room

Technology:

The communication systems was installed not too long ago. The comm and other low voltage systems are located within the Bunk Room. The room is slightly crowded and its unconventional to house the comm equipment within a sleeping area, the system appears to be operating satisfactorily. We believe the cabling for the system should be upgraded to CAT 6.

IMG_4432: Communication rack located above sleeping bunk



IMG_4437: Rack interior with patch panel and cabling


IMG_4439: Incoming fiber optic service

IMG_4388: WAP on ceiling in Dayroom

Lightning Protection:

There was no Lightning Protection System observed to be installed on the roof of the building. We recommend the installation of a Lightning Protection System in Florida.

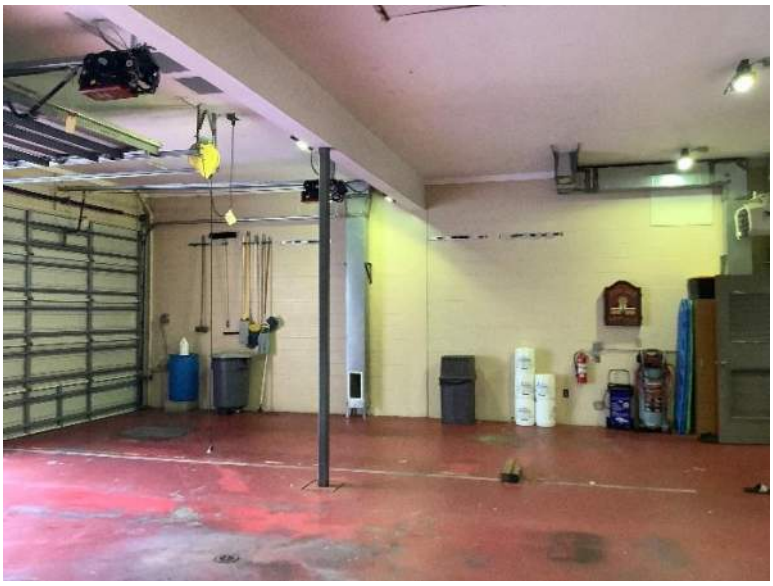
### 1.3 Structural Evaluation

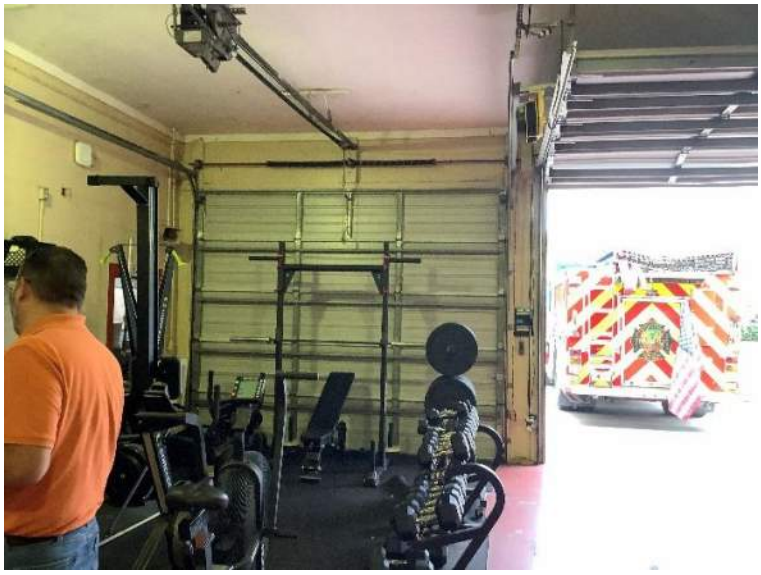
BBM was requested to provide a structural assessment of this existing city fire station 22 for potential reuse by the city after a new fire station is built. The existing structure consists of masonry (CMU) load bearing walls with stucco finish on shallow foundations and a wooden truss roof framing system with a usable attic space over the truck bays. The exterior review of the roof structure did not indicate any deformities that would lead BBM to believe that any structural roof or truss issues might exist.

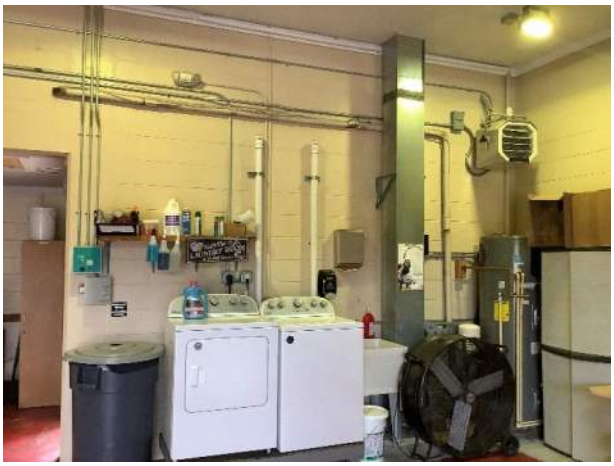
The photos above are of various location around the exterior of the building. In multiple locations there was noted cracking in the walls presumably from settlement over the years. This cracking was noticeable but appeared to be tight and unopened. Some repairs were evident in various location. See photos below.


The interior truck bay floor had a singular longitudinal crack which ran from approximately middle of the first truck bay completely through the second truck bay and dissipated in the third truck bay area. This crack is most likely the result of fire engine weight localized on the edge of the bay floor slab at or near the doors. The crack is approximately 3'-0" inside the doors. The crack also appears to somewhat dated and may have occurred some time ago even as early as when the building was new.

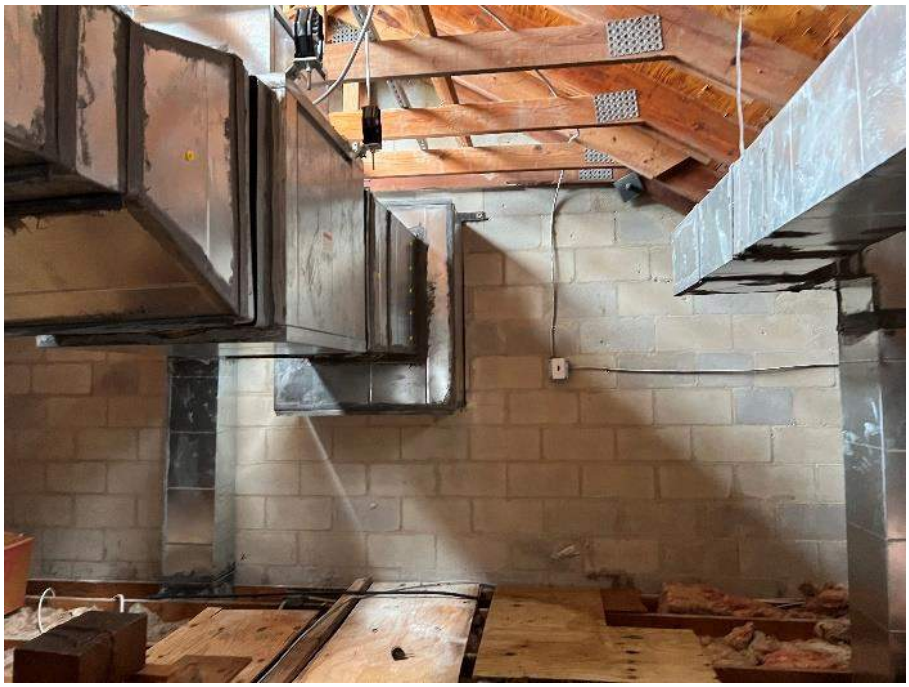
The interior walls and slabs appeared to be good condition aside from the crack noted earlier. A review of interior masonry walls did not show signs of cracking or other anomalies.







The attic area above the truck bay was accessed and observations in this area did not produce any notable structural conditions and appeared to be well preserved. It was noted this area appeared to have been design as a usable space perhaps a bunk room or possible office space but was currently being used for storage and an open space for duct work to be run unimpeded.



The owner reported at time of visit the existence of possible termite damage in the roof spaces over the living quarters more specifically the sleeping area. This area was not able to be accessed for a thorough review due to hard ceilings in place. Future renovations may uncover such unforeseen issues and assessment and mitigation would need to be determined at that time.

In conclusion: The overall condition of the structure is good aside from the noted minor issues described in this report. BBM did not note any structural conditions that would indicate the building is unserviceable for its current or future usage. It has been our pleasure to provide this report and hope it aids the owner in their decisions regarding this structure.

### 1.4 Architectural Evaluation

The Architectural evaluation is based on what building elements were readily visible on the day of the actual site visit. This report is not intended to address conditions that are internal to wall and roof assemblies that are not readily visible.

EXTERIOR WALLS:

Please see the structural evaluation for the structural component of the exterior walls. The exterior cladding of the building is painted stucco finish over CMU concrete masonry units) While not in major need for repair, the exterior cladding is in need or localized repairs and repainting, mostly due to water exposure, and seasonal cracking.

EXTERIOR OPENINGS:

(Doors, Windows, Storefronts, louvers) while currently functional all exterior windows are single pane aluminum windows and as such are significantly more energy inefficient that windows/ storefront as per current code requirement. The recommendation of the architecture team is that all windows would need to be fully replaced with insulated window/ storefront systems.

Exterior doors are painted hollow metal doors with hollow metal frames. The condition of the doors is functional, no major issues were observed. The glazed exterior doors are single pane glass similar to the windows and would need to be replaced with more energy efficient glazed doors. The sectional overhead doors in the apparatus bays are in working order, although wear and tear as well as indentations are visible in several locations. Depending on proposed new use, sectional doors may have to be replaced with other doors or storefront windows as new use requires.

Exterior lovers are in good order, no major issues were observed, other than expected wear and tear from normal use.


ENGINE COMPANY

ROOF:

Please see structural evaluation for roof structure. The entire roofing system, and any openings and penetrations through the roof will need to be replaced. Fascia, and transition flashing between walls and roof need to be replaced as well.

CANOPIES/ EXTERIOR SOFFITS:

The exterior soffit appears to have been patch repaired at some point. The recommended action is to fully replace the entire exterior canopy soffit to minimize future water mitigation and damage.

INTERIOR WALLS:

The apparatus bay has exposed painted CMU on the interior. Bathrooms/ showers have mostly exposed painted CMU with ceramic tile in shower areas. The rest of the building has painted gypsum board stud walls. The walls were in good usable condition, no major issues were observed, other than localized scrapes and scratches that could be expected from normal use. Interior repainting is recommended. The portions of wall that have ceramic tile cladding are in good working conditions with localized grout discoloration and abrasion noticeable. Finishes updates in restrooms showers is recommended.


INTERIOR CEILING:

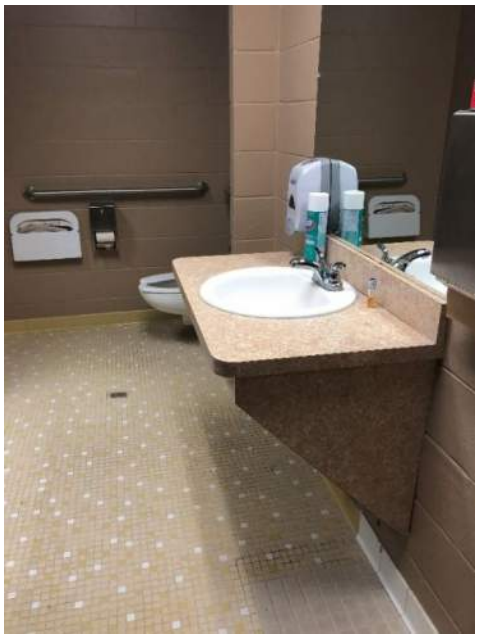
Apparatus bay and apparatus support/storage spaces accessible directly from the apparatus bay gypsum board (hard ceilings. The ceilings have numerous penetrations and attachments from the current use of the facilty. Extensive wear and tear noticeable, several patched areas visible. Depending on anticipated future use, ceilings at minimum would need to be patched, repaired and painted, but preferably replaced.

Throughout the rest of the facility ceilings are mostly ACT (acoustical ceiling tile) in generally good condition, with some tiles with more extensive cracking and discoloration. Hard ceilings in bunk spaces and portion of the restrooms is in good condition as well. ACT in restrooms would need to be replaced with hard ceiling.

FLOORS:

Apparatus bay floors are painted concrete floors. Due to the age of the facility and the use as a fire station, extensive discoloration and oil spills are present in the floor. Any other future use of the space other than a garage/ storage usage would require floor remediation by clean up, and surface refinishing.

The rest of the fascility features VCT (vinyl composite tile) flooring in generally good condition. The restrooms/ showers have tile floors which although functional would need to be replaced. At several locations, patched repaired not matching tiles are visible.



CASEWORK:

Cabinets in the kitchen are in good working condition. Laminate Countertop has some cracked and peeling locations and is nearing the end of its useful cycle. Recommended the countertop to be replaced. Additional furniture throughout the facility is showing average wear and tear, but is in generally working condition and could be reused depending on future use expectations and requirements.

INSULATION:

The design team was able to observe the roof and attic insulation only since it was readily visible. The roof in the apparatus bay does not show any insulation on the underdeck. There is loose batt insulation over the apparatus bay ceiling. Only a portion of the apparatus has attic insulation over the ceiling, the rest is exposed framing and gypsum board. Depending on future uses of space additional insulation may be required. The roof over the day spaces/ admin appears to have spray foam insulation under the roof deck in the attic space.

CODE:

The building has exterior CMU wall construction with wood trusses. As such it qualifies as combustible construction type in its current condition. Without any significant changes to the roof structural members of the facility the building could be reused only for occupancy and use that allows for combustible construction. Future use of the building for I-2 (Foster care facilities, Detoxification facilities, Hospitals, Nursing homes, Psychiatric hospitals), and H-1 (facilities that deal with materials that pose detonation hazard) occupancy would not be permitted.

Business occupancy or Assembly occupancy are both viable options for future use. Depending on the number of tenants that a future use would have, fire separation walls may need to be added. Depending on the future use any renovation work that would involve significant walls replacement and or additions future renovation would qualify as a level 2 or level 3 per Florida Building Code:

603.1Scope.

Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

603.2Application.

Level 2 alterations shall comply with the provisions of Chapter 7 for Level 1 alterations as well as the provisions of Chapter 8.

604.1Scope.

Level 3 alterations apply where the work area exceeds 50 percent of the building area.

604.2Application.

Level 3 alterations shall comply with the provisions of Chapters 7 and 8 for Level 1 and 2 alterations, respectively, as well as the provisions of Chapter 9.

ROM (ROUGH ORDER OF MAGNITUDE) COST AND SUMMARY

The list below is a summary of the recommended repairs per respective discipline of this report. The cost estimate is not a detailed estimate but rather a rough order of magnitude evaluation of the proposed scope of work

Plumbing:

1. All Drains in apparatus bay need to be replaced.
2. Replace and properly install domestic water piping, heavily modified and improperly installed and added upon over the years.

HVAC

3. Replace the entire HVAC system (AHU + Condensing unit)
4. Replace all HVAC distribution ducts and diffusers plus add additional zone controls.
    a. Apparatus bay needs to be fully airconditioned space.

Electrical

5. Replace all Electrical panels.
6. Replace generator and ATS (existing still have useful life but do not meet current code requirements and could be salvaged and repurposed elsewhere)
7. Replace all lights with LED technology lighting.
8. Replace all light switches with automatic occupancy sensors throughout.
9. Replace all Site lighting.
10. Replace all wiring and receptacles to meet current code requirements.
11. Add lightning protection system.

Fire

12. Add Fire alarm System.

Telecom

13. Upgrade all low voltage wiring to CAT 6

Architectural

14. Repair Stucco on exterior
15. Repaint Exterior
16. Replace all windows and exterior storefront with insulated glazing systems
17. Replace Apparatus doors with storefront.
18. The roof needs to be replaced.
19. Exterior Soffits need to be repaired.
20. Repaint interior walls throughout.
21. Apparatus Bay floors need to be resurfaced and repaired.
22. All bathroom finishes need to be replaced.
23. Provide full insulation around apparatus bay (walls furred on inside, and ceiling or attic)

ROM total estimate range $500,000-$1.5 mil.

**1.4 ROM Cost Estimate Breakdown**

The ROM estimate was provided by Wharton Smith.

Estimate general notes:

1. Existing 400A Generator & ATS shall be retained for Palm Coast City (final delivery/relocation by owner)
2. This budget includes costs for a new 100kW (nearest standard size) Diesel Generator with 350 gallon belly tank (including start-up/test and final fuel fill)
3. We have included costs to mill and resurface the rear parking with 2 ½" of flexible asphalt and all new striping.
4. The existing 6" thick concrete front driveway includes complete demolition from the existing roll-up doors to the street to make way for new asphalt parking.
5. The new front entrance includes costs for new 10" Stabilized subgrade, 6" limestone base, and 2" asphalt topping as well as new lot striping and wheel stops.

6. Based on the anticipated future building use (museum, city admin bldg., etc.) our budget includes removing the kitchen (leaving plumbing stubs/valves in wall for kitchenette) and patching/painting of the kitchen area. We did not include costs of a new kitchen (i.e., appliances, upper and lower cabinets, counter tops, etc.)
7. Our budget also includes the following items required due to the adjacent demolition, new work, and/or construction activities:
    - new fascia & soffit at new apparatus bay area roof
    - gutters/downspouts at new roof
    - sodding and temp. irrigation around perimeter of building and parking lots
    - concrete curbs at new parking lot
    - new AC zone (apparatus bay) is assumed to be a 10-ton DX split system w/DDC controls

96-26-002.1

Wharton-Smith, Inc.
CONSTRUCTION GROUP

**Palm Coast Existing Fire Station 22** 6/1/2023

City of Palm Coast

**ESTIMATING WORKSHEET SUMMARY** Building Area 2,991 SF

| DESCRIPTION | $/SF | | TOTAL |
|---|---|---|---|
| | | | |
| Direct Costs | | | |
| General Requirements | $ 10.50 | | 31,416 |
| Demolition | $ 10.38 | | 31,041 |
| Cast in place concrete | $ 6.71 | | 20,078 |
| Rough Carpentry | $ 1.37 | | 4,100 |
| Thermal & Moisture Protection | $ 5.71 | | 17,066 |
| Roofing | $ 20.83 | | 62,310 |
| Doors, Frames & Hardware | $ 4.55 | | 13,600 |
| Windows & Glazing | $ 22.53 | | 67,384 |
| Drywall | $ 14.35 | | 42,918 |
| Stucco | $ 5.78 | | 17,296 |
| Tile | $ 4.02 | | 12,035 |
| Acoustical Ceilings | $ 1.71 | | 5,125 |
| Painting | $ 5.45 | | 16,300 |
| Window Treatments | $ 0.59 | | 1,750 |
| Fire Sprinklers | $ 5.00 | | 14,955 |
| Plumbing | $ 5.18 | | 15,485 |
| HVAC | $ 32.36 | | 96,780 |
| Electrical | $ 51.33 | | 153,522 |
| Site earthwork, Utilities & Paving | $ 24.02 | | 71,831 |
| Landscaping & Irrigation | $ 1.56 | | 4,675 |
| **TOTAL DIRECT COSTS** | $ 233.92 | | 699,667 |
| Indirect Costs | | | |
| General Conditions | $ 50.27 | 21.49% | 150,346 |
| Preconstruction | | 2.00% | 21,983 |
| A/E Design & C/A Fees | $ - | | 0 |
| BIM Services | $ 0.37 | 0.10% | 1,099 |
| IT Software | $ 0.77 | 0.21% | 2,308 |
| Design Contingency | $ 23.39 | 10.00% | 69,967 |
| Escalation Contingency | $ 11.70 | 5.00% | 34,983 |
| General Liability Insurance | $ 2.57 | 0.70% | 7,694 |
| Builder's Risk Insurance | $ 0.75 | 0.20% | 2,242 |
| Permits | $ - | 0.00% | 0 |
| P&P Bond | $ 2.99 | 0.81% | 8,944 |
| **SUBTOTAL** | $ 334.08 | | 999,234 |
| Construction Contingency | $ 16.70 | 5.00% | 49,962 |
| Owner Contingency | $ - | 0.00% | 0 |
| Subtotal | $ 350.78 | | 1,049,195 |
| | $ - | | |
| Fee | $ 16.70 | 5.00% | 49,962 |
| **Conceptual Budget** | $ 367.49 | | **1,099,157** |

This budget is based upon the Evaluation and Assessment Report of the existing Palm Coast Fire Station 22 prepared by Schenkel Shultz, dated May 1st, 2023

DESIGN TEAM CONCLUSION:

This report is to aid the City of Palm Coast in developing a list of future possible uses of the facility after the Fire Department relocates to the new FS 22. The viability of remodel and reuse of the facility will depend greatly on the type of future use intended. The site is on a very prominent corner lot and has great access to roads and utilities. Additional economic, and ROI (return on investment) reports could provide valuable insight to the best future use of the existing building/ site off the current Fire station 22.