VILLAGE OF BRATENAHL
VILLAGE CENTER
FEASIBILITY STUDY

DS ARCHITECTURE

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PROJECT TEAM

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PROJECT TEAM - KEY STAKE HOLDERS

VILLAGE OF BRATENAHL - VILLAGE COUNCIL
The Village of Bratenahl is lead by Village Council including the following members:

John Licastro - Mayor
Keith Benjamin
Joyce Burke-Jones
Tracy Hoefling
Gina Huffman
Thomas McDonald
Robert Yonchak

VILLAGE OF BRATENAHL - STAKE HOLDER COMMITTEE

A stake holder committee was created and made up of the Police Department, Village Administration, Service Department, Recreation Department and Community Members. Members of the committee included the following members:

John Licastro - Mayor
Diana Cooks - Fiscal Officer
Mary Ranney - Building Department
Jullie Kreiner - Clerk of Courts
Joseph Zalar - Service Department
Susan Capello - Recreation Department
Chuck LoBello - Chief of Police
Dominic Soric - Lieutenant
Roy Call - Resident
Russell O'Rourke - Resident
Patty Giudice - Resident

VAN AUKEN AKINS
John Kaminski - Owners Representative

DS ARCHITECTURE
Jeffrey Meyers - Studio Director
Eric Pros - Project Architect
Kristen Mara - Project Designer

OBJECTIVES

The focus of this feasibility study is determining the direction of the Village's physical assets for the current residents and future generations. The Village currently owns four facilities located on several parcels of land. These include Village Hall, the Community Center, Bratenahl Center (Old High School) and the Service Garage.

The need for the feasibility study is multifaceted and led by two eminent factors. The first is that payments for the $2.4M that was borrowed to build the Service Garage commences in 2023. The second is the need for a new Police Station in order to attract and retain talent to sustain the future of the Police Department. The existing station is antiquated, non-compliant with current buildings codes and does not serve the operational needs of the department. Village Hall, the current location of the Police Department, has physical hazards that create an unsafe work environment for police department's officers and employees. It also creates an hindrance for the future growth of the department.

This study will be broken into the following areas for assessment:

- Building and Site Analysis
- Concept Exploration
- Program Analysis
- Recommendations

The findings herein are intended, as indicated above, to verify existing conditions noting items of importance in order to govern recommendations for actionable implementation of next steps.

PROCESS

For over 30 years we, DS Architecture, have based our approach to architecture on the simple but effective methodology of:

We listen. We invite the sharing of information, ideas and goals. This input gathering at the very outset of the process lays the groundwork for a project that best meets the project budget, schedule, form and functional needs.

We lead. We guide the discussion and promote the collaboration between all team members to produce a project we are all proudly invested in.

We Innovate. Every project is unique. Reaching the optimal solution for each project requires a team committed to studying, assessing and developing the most efficient and enduring design.

BACKGROUND

In 2013 the Village of Bratenahl engaged Environmental Design Group to aid in the development of a Strategic Master Plan. This Master Plan provides tools and direction for the Village to guide future community decisions and is still followed today. The plan sets priorities and outlines actionable strategies for both short term and long term goals.

The 2013 Strategic Master Plan recommended completion of a public facilities assessment. In 2015 the Village engaged Allegro Realty to complete the Community Facilities Master Plan & Land Use Strategy. In conjunction with this study programming analysis was completed by Beegan Architecture. This 2015 study assessed the Village Hall and Village Park (411 Bratenahl Rd), the Service Garage (57 Garfield Lane), Bratenahl Community Center (10300 Brighton Road), Foster Park, Conservation Land and CMSD Branenahl Center Teacher's Professional Development Facility (11404 Lakeshore Boulevard) as potential to lease. The report outlines multiple land use opportunities and associated cost and provided final recommendations for the Village.

The 2015 Master Plan resulted in Doty & Miller Architects developing Recreation and Community Center Program reports. They studied renovating the existing Community Center (10300 Brighton Road) vs building new. No action was taken based upon this study.

Upon the recommendation of the Master Plan the Service Center and Salt Dome were renovated and opened in 2018. The $2.4 million dollar center was financed with payments starting in 2023.

In 2020, Bratenahl Village Architect, Van Auken Akin Architects completed an ADA Compliance Report for the Bratenahl Community Center to bring the building up to Code Compliance. Additionally, in 2020 Van Auken Akin Architects prepared a scope and cost of repairs needed to the Bratenahl Center (11404 Lakeshore Boulevard). In 2021 the Village of Bratenahl completed the acquisition of the Bratenahl Center and Van Auken Akin Architects completed a Preoccupancy Assessment of repairs required to occupy the building. At the time of this study no improvements have been made to the facility.

Acquiring the Bratenahl Center created an opportunity for the Village to reimagine the use of its public buildings and properties. In 2022 Village Council commissioned DS Architecture to complete a comprehensive feasibility study of Village Hall, the Community Center and Bratenahl Center. The goal was to determine the appropriate location and required program elements for the Police Department, Village Administration and Recreation Department.

OVERVIEW

To best determine the direction of the Village's physical assets DS Architecture, along with consulting engineers EPIC Engineering (Mechanical, Electrical, Pluming and Technology Engineers) and THP Limited (Structural Engineers) completed on-site facility observations of the Community Center (10300 Brighton Road), the Bratenahl Center (11404 Lake Shore Blvd.) and Village Hall (411 Bratenahl Road). Full evaluations of building systems were completed only for the Community Center and Bratenahl Center. For the purpose of this assessment, the conditions evaluated are limited to visual observations of exposed elements - demolition and destructive testing to obtain hidden elements are beyond the scope of this study.

In addition, program interview meetings were completed with Village Administration, the Police Department and the Recreation Department. Along with various stake holder meetings two town hall meetings were also conducted.

The building's current conditions at the time of this study have been photo documented, and findings are summarized within. All meetings held have been documented in meeting minutes and are attached to the end of this study in the Appendix.

This study aims to summarize the findings of the feasibility study process. The recommendations are based upon critical success factors that were determined through the completion of the feasibility study process.

Critical Success Factors:

- Practical
- Memorable
- Affordable
- Lasting
- Future Looking
- Inclusive
- Visually Appealing
- Portrays Confidence
- Sustainability
- Longevity
- Enhancement
- Portrays Confidence

BUILDING & SITE ANALYSIS

BRATENAHL CENTER

Bratenahl Center is a single story building, slab on grade and is approximately 14,600 SF. It is currently unoccupied. It was originally built in 1975 as the Bratenahl High School.

The existing building is in overall fair condition. The building envelope appears predominantly intact with the exception of a large skylight located at the entrance lobby. The building appears to meet basic accessibility standards, with some minor exceptions, as required by the Americans with Disabilities Act of 1990 (ADA).

ZONING ANALYSIS

The property is approximately 7.64 acres located at 11404 Lake Shore Boulevard.

Parcel Number:
#631-21-002

Use District:
The property is classified under R2 – Standard One-family Residence District. The structure best classifies under the zoning code as Municipal Building and this use is permitted in the R2 District.

Parking:
There are no specific parking requirements for schools within a R2 District. However, it appears that there are approximately 125 parking spaces with 5 of them being ADA compliant. Having 1 parking space for every 150-200 Square Feet of building is in line with standard parking requirements for High Schools. Thus, there appears to be more than adequate parking for the buildings current use.

EXISTING CONDITIONS (SITE)

The former high school is situated in the center of the 'L' shaped parcel. To the North of the site is Lake Shore Boulevard, to the East is a combination of residential housing and Eddy Road, the West of the site is bounded by a natural creek and woods, lastly to the South is interstate I-90.

The site has a significant grade change from a highpoint on the southeast corner sloping across the parcel to the northwest. The architecture of the building compliments this natural topography as the building is nestled into a hillside. This allows for an entrance plaza setback and down from the parking lot.

CODE COMPLIANCE

Applicable Codes
2017 Ohio Building Code, ICC/ANSI A117.1-2009, 2017 Ohio Plumbing Code, 2017 Ohio Mechanical Code, NFPA 70-17; 2017 Ohio Energy Code, 2017 Ohio Fire Code, 2010 ADA Standards,

The existing structure is a considered non-separated Use Group E-Education The building is approximately 14,600 SF single story slab on grade. In addition to the analysis that was completed for the purposes of this study Van Auken Akins Architects (VAA) completed an independent study in 2020. According to the 2020 VAA Study: *the building is constructed with concrete foundations, cement masonry unit walls with a stucco finish and a small number of metal wall panels. The roofing system is constructed of wood trusses with plywood decking. The sloped roof is comprised of asphalt shingles and the flat roof is comprised of bituminous roll roofing. All windows are a storefront type system with glazed aluminum framed doors. The interior walls are painted gypsum board. The flooring is ceramic tile, carpet, VCT and wood. Ceilings are painted gypsum board and acoustical ceiling tiles.* No fire proofing was visible on any structural elements observed. The building construction most closely coincides with Type IIIB, unprotected, construction. General building heights and areas are within the allowable limits

Fire Protection System
A dry-type fire suppression system was observed in the building.

Means of Egress
Approximate Occupant Loads for the building: 500+/-

Minimum Number of Exits Required: 3

OBC Chapter 29 - Plumbing Systems
Table 2902.1 - Minimum Number of Required Plumbing Fixtures

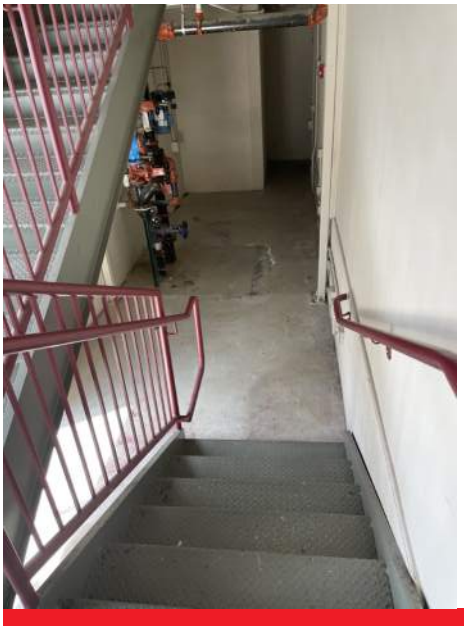
Fixture Type	Required
Water Closet	5 Male | 5 Female
Lavatories	5 Male | 5 Female
Drinking Fountain	2.5

ENERGY CODE

The existing building predates the Ohio Energy Code, any new alterations, repairs or building systems upgrades will be required to comply with current energy code requirements. Visual observations suggest detailing for wall system assembly shows no indication of attention to potential thermal bridging or air and vapor movement. Windows, skylights, and door systems in the exterior envelope are old and worn. Signs of air infiltration is evident. Change of use of a space resulting in an increase in fossil fuel consumption or electrical consumption requires that space be brought up to current code.

ACCESSIBILITY

All Buildings are required to be compliant with Ohio Building Code Section 3411, Accessibility for Existing Buildings. All municipalities are required to have accessible code compliant buildings and amenities. If buildings are determined to not be code compliant a public entity must perform a self-evaluation and develop a transition plan if structural changes are necessary



for achieving program accessibility.

An exhaustive review was not completed for accessibility, the following observations were noted. The building appears to be ADA compliant with very minor modifications required.

2022 Bratenahl Condition Assessments

Bratenahl Center – Facade

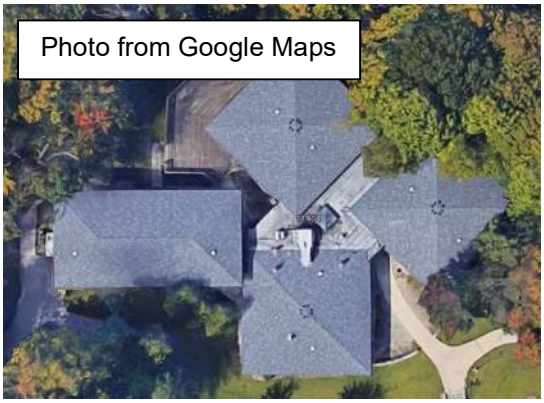
- Built circa 1974
- 1 Story
- Exterior Walls (Interior-to-Exterior):
  - 5/8-inch Interior Gypsum Drywall
  - 1-inch Rigid Insulation
  - Load-Bearing Concrete Masonry
  - Exterior Stucco
  - Aluminum Framed Windows & Storefronts
- High-Sloped Hipped Roofs:
  - Asphalt Shingled
  - No Gutters or Downspouts
- Central Low-Sloped Roof:
  - SBS Modified Bitumen Roof

Bratenahl Center – Facade Observations & Recommendations

1. Asphalt Shingled Roofs: The roof consists of high-sloped hipped asphalt shingled roofs that were observed to be in overall fair condition. The shingles extend approximately 2-inches past the edge of the roof; we did not observe a drip edge, gutters, or downspouts. A sheet metal diverter is installed at the base of the roof over the main entrance to direct the water to the adjacent hipped roofs to drain off their edges. The roofs are vented with 2-inch-wide continuous soffit vents as the intake, and two box vents at the top of each hip as the exhaust.

We recommend removal and replacement of the asphalt shingle roof. During replacement, we recommend installation of a drip edge to facilitate shedding of water off the fascia and, although it will alter the aesthetics of the building, potential installation of gutters and downspouts to drain the water. Additionally, we recommend performing calculations to confirm that the roof ventilation is sufficient.

2. Low-Sloped Membrane Roof: The footprint of the building consists of four rotated rectangular sections, with hipped roofs, with a central connection. The roof of the central section consists of a low-sloped roof membrane. The original design drawings indicate a built-up roof with gravel ballast. We were unable to review the roof membrane, but from satellite photographs it appears to consist of an SBS modified bitumen roof membrane. A scupper is located on the northwest elevation for drainage directly off the roof; a drip edge or downspout are not provided.



We recommend review of the low-sloped membrane roof for replacement. It is our understanding that leaks are occurring into the interior of the building within the low-sloped roof.

3. Wood Fascia: A 1x12 stained wood fascia is located at the base of the roof around the perimeter of the building at both the hipped roofs and the central low-sloped roof. The fascia was observed to have weathered and the stain has cracked, blistered, and peeled at isolated locations. Additionally, bugs have burrowed holes within the wood fascia at isolated locations around the perimeter of the building.

We recommend removal and replacement of any isolated portions of deteriorated and damaged wood, application of an epoxy hardener where it is soft, and cleaning and staining the wood fascia to extend its service life.

4. Soffit: The soffit around the perimeter of the hipped roofs consists of painted exterior gypsum sheathing. Cracking and displacement/sagging was observed between adjacent panels, particularly at the corners of the building. Blistering and peeling of the paint, moisture damage, as well as holes within the soffit sheathing, were observed at isolated locations due to leaks/moisture.




We recommend removal and replacement of the soffit, potentially with a new sheet metal or composite soffit system, or with new exterior sheathing with a waterproof coating. If budget constraints do not allow replacement of the soffit, we recommend replacement of damaged portions and cleaning and painting of the existing soffit to extend its service life.

5. Exterior Stucco: The exterior walls consist of exterior stucco applied to the load-bearing concrete masonry walls. Reveals/control joints, intended to “control” shrinkage cracking of the cementitious coating, are provided in the stucco within longer lengths of walls, spaced approximately 8-feet on center. However, vertical cracks were observed within the stucco at isolated locations.

   The stucco is applied the full height of the building; cracks, delaminations, and spalls were observed within the stucco, particularly at the base of the walls where moisture due to rain and snow could wick up the wall. The accumulation of moisture resulted in both freeze-thaw deterioration of the stucco and corrosion of its embedded metal lath. (Freeze-thaw deterioration is cracking and spalling caused by cyclic freezing and thawing. Water that is absorbed in the exterior wall material freezes, expands, breaks down the material, and then thaws leaving voids within the material.)

Spalls revealed that the stucco is approximately 1-inch thick. Within the spalled area, we observed evidence of very few fasteners for the metal lath to the concrete masonry (approximately three fasteners in a 50 to 60 square foot area). Within the spalled material, the lath, which was located within the center of the thickness of the stucco, was observed to be corroded. Previous patch repairs were performed at isolated locations; shrinkage cracks were observed within the patches.




The exterior stucco walls perform as a barrier system. (A barrier wall system is intended to prevent moisture penetration, as compared to a drainage wall system that would allow water to penetrate but would direct it back out of the exterior.) Repair and waterproofing of the stucco will be required as ongoing maintenance. We recommend the following within the exterior stucco:

- Removal of loose material and patching the stucco at cracks, delaminations, and spalls.
- Installation of additional reveals/control joints within the stucco.
- Removal of the stucco at the base of the walls for installation of new sheet metal flashing/weep screed. (Industry standards recommend maintaining the base of the stucco 4-inches minimum above grade, requiring installation of a waterproof membrane at the base of the concrete masonry backup.)
- Cleaning of the stucco and coating with a breathable elastomeric coating.
- Installation of silicone joint sealant within the reveals/control joints. We recommend use of silicone joint sealant, which has an anticipated service life of 20 years if properly installed, versus the 5 to 7-year anticipated life of urethane.

6. Windows & Storefronts: The aluminum framed windows and storefronts function as a barrier system. The intent of a barrier system is to prevent water penetration into the windows and exterior walls. The following are recommended repairs within the existing windows and storefronts to minimize moisture penetration into the windows and the interior of the building:

   a. Broken Glass: Broken panes of glass, which have been infilled with plywood, were observed at isolated windows and storefronts.

   We recommend replacement of the broken panes of glass or replacement of the window units.

   b. Perimeter Joint Sealant: The joint sealant at the perimeter of the windows and storefronts, as well as at miscellaneous wall penetrations, was observed to consist of urethane joint sealant that is thin in profile, has hardened, crazed, and lost bond at isolated locations.

   We recommend removal of the existing joint sealant at the perimeter joints, and replacement with silicone joint sealant.

c. Glass-to-Metal Wet Sealant: The gaskets within the windows and storefronts, providing the seal at the perimeter of the glazing, have hardened, and have begun to shorten.


We recommend installation of silicone glass-to-metal wet sealant at the perimeter of the glazing to minimize moisture penetration into the storefront window system.

d. Preformed Silicone Seals: Gaps were noted at intersections of the frame between the horizontal and vertical frame members within the storefront windows.


We recommend installation of preformed silicone seals at the joints within the frames to minimize moisture penetration into the system.

e. Cast Stone Sills: The windowsills consist of cast stone. The cast stone is in overall good condition, with cracks at isolated locations. The mortar within the head (vertical) and bed (horizontal) joints was observed to have weathered and to have cracked and lost bond at isolated locations. We did not observe evidence of subsill flashing.


We recommend the following waterproofing repairs within the cast stone sills:

- Removal of loose material and patching the cracks within the cast stone.
- Repointing the mortar head and bed joints. We recommend raking back the head joints to allow for the installation of backer rod and silicone joint sealant.
- Cleaning the cast stone and application of a clear water repellent sealer, to minimize moisture penetration into the cast stone and freeze-thaw deterioration.
- If the Owner elects to remove and replace the windows, we recommend removal and reinstallation of the cast stone windowsills to allow for installation of sheet metal subsill flashing.

f. Metal Doors: The doors consist of painted metal doors and frames. The frames, which extend to the soffit, are infilled with sheet metal panels installed as transoms over the doors and as wall panels at additional infilled door locations. The metal doors, frames, and metal panels are in overall good condition, with outward displacement of the metal panels observed at isolated locations. The paint has weathered and has cracked, blistered, and peeled at isolated locations. We observed surface corrosion of the exposed metal, as well as of the exposed door hinges.

The door frames were installed tight to the stucco walls. The urethane joint sealant at the perimeter of the frames was observed to be thin in profile, to have hardened, and to be typically concealed by paint.



We recommend cleaning and painting the metal doors, frames, and sheet metal infill panels, as well as removal and replacement of the joint sealant with silicone at the perimeter of the frames.

7. Miscellaneous:

   a. MEP Penetrations: Ductwork, from adjacent exterior mechanical units, penetrates the exterior stucco walls on the north and northwest elevations of the building. We did not observe flashing at the penetration into the exterior wall.


We recommend installation of sheet metal counter-flashing at the penetrations of the mechanical ductwork into the exterior stucco walls, as well as installation of silicone joint sealant at the joint above the counter-flashing.

   b. Exterior Barrier Walls: Exterior barrier walls are located at the main entry, one each side of the sidewalk. The walls are constructed of concrete masonry, coated with exterior stucco, with cast stone copings. The mortar joints within the copings were observed to have cracked, lost bond, contain voids, or to be missing at various locations, and isolated coping units have displaced, providing direct paths for moisture penetration into the barrier wall. Through-wall flashing was not observed below the copings.


We recommend the following repairs within the exterior barrier walls:

- Removal and reinstallation of the cast stone copings to allow for installation of sheet metal through-wall flashing. We recommend reinstallation of the copings in full mortar head and bed joints, with head joints raked back to allow for the installation of backer rod and silicone joint sealant.
- Removal of loose material and patching the stucco at cracks, delaminations, and spalls.
- Installation of reveals/control joints within the stucco.
- Removal of the stucco at the base of the barrier walls for installation of new sheet metal flashing/weep screed. (Industry standards recommend maintaining the base of the stucco 4-inches minimum above grade, requiring installation of a waterproof membrane at the base of the concrete masonry backup.)
- Cleaning of the stucco and coating with a breathable elastomeric coating.
- Installation of silicone joint sealant within the reveals/control joints.

Limitations

This report is based on conditions existing as of the date of the Survey and assumes the original design and construction of the Project met appropriate standards. Unless otherwise noted in this report, review of conditions hidden or indeterminable from visual assessment are excluded from THP's scope of work.

THP's professional services are performed in accordance with generally accepted professional standards of care appropriate for the size, complexity, schedule and other characteristics of this project, and the recommendations provided are appropriate given the scope of our review. THP cannot precisely predict when structural and waterproofing components may fail or otherwise require additional repair. This report contains no express or implied warranty concerning the observations, conclusions, and recommendations. Conditions change with time and use of the facility, thereby meriting further inspection as well as potential changes in the recommendations contained herein. It is possible that the need for repairs or maintenance identified through this report may be accelerated due to conditions or events outside of THP's control, which may include events that occur after the Survey was completed. It is critical that the Owner timely implement the repairs and maintenance identified in the report and periodically re-evaluate for future repairs and maintenance.

The conclusions and recommendations in this report are provided to the Owner for repair/maintenance planning and budgeting purposes. This report is not intended to be used as a construction document.

2022 Bratenahl Condition Assessments

Bratenahl Center – Structural

1. Structural Systems

   a. Building Data:
   Building was constructed in 1974.
   Total building area: 14,200 SF
   Levels: 1st Floor (ground floor), Roof.

   b. Design Loads:
   Floor loading was not included on the 1974 drawings. Assumed floor live loads are: 60 psf for offices and classrooms; 80 psf for corridors; 100 psf for stairs. 25 psf for roof.
   Seismic loading and wind loading were not listed on drawings.

   c. Foundation System:
   Concrete drilled piers under the deck on the south side. Spread footings under the main structure of the building. Bearing pressure listed as 3000 psf.

   d. Floor System:
   Concrete slab on grade at the ground floor.
   Wood joists bearing on structural steel beams at the exterior deck.

   e. Roof System:
   The roof structure was conducted out of wood roof trusses.

   f. Lateral System:
   Lateral system is exterior CMU shear walls.

2. Observations/Assessments

   THP visited the site on May 11, 2022. The building was assessed for visible evidence of structural distress, and potential structural concerns that need to be addressed when renovating the building. Structure concealed by finishes were no able to be reviewed.

   No distress in partitions or ceilings were observed inside the building. The main building structure good condition.

   a. Extensive roof leaks exist at the flat roof above the entrance lobby and kitchen area. The roof structure in this area was observed to be wood I-joists. The moisture from the roof leaks has saturated the wood. Wood I-joists typically have plywood webs. Moisture can decrease the strength of the webs.


b. Several roof leaks were observed throughout the areas of the building with wood trusses and plywood roof sheathing. Roof sheathing observed to be moisture stained.


c. Wood trusses with little to no moisture staining. Roof leaks typically occurred away from the truss bearing.

d. At one location on the north side of the building a hole through the roof sheathing was observed. The hole in the roof sheathing is above the perimeter soffit.

e. The southwest side of the building has an exterior deck framed with wood joists over steel girders on drilled pier foundations. The deck floorboards were observed to be weathers, rotted at some locations, and missing at one location.

f. CMU bearing walls were observed from the exterior and interior, but finishes covered both interior and exterior sides. The exterior and interior finishes were not observed to be cracked except at one location on the exterior. A patch of the exterior finish was missing at the base of the wall on the northeast side. The CMU wall behind was observed to be in good condition.

3. Recommendations

a. When renovating this building, an evaluation of the lateral system will be required if the risk category changes. If the building area is modified or the structural system is significantly altered, new seismic load resisting systems may be needed to meet the requirements of the current codes. For the structure present at the Bratenahl Center sections of the building that would require reinforcement for an increased risk category could be structurally isolated to limit the amount of lateral system reinforcement required.

b. Damaged roof sheathing should be replaced. This will keep the wood trusses in good condition and maintain the stability of the trusses. In conjunction with review of the structure for an increased risk category the roof sheathing thickness should be increased as required to support increased seismic loading.

Executive Summary

This report is to assess the condition, age, and adequacy of the installed mechanical, electrical, and plumbing systems for two facilities currently owned and operated by the Village of Bratenahl located just east of downtown Cleveland on the water's edge of Lake Erie. EEG was assisted in their assessment walk though with Service Director Joe Zalar. Joes' expertise and knowledge of both buildings was exceptional and greatly assisted with the engineering review performed.

The Bratenahl Center is a former Cleveland Municipal School District Professional Development Center that was most recently renovated in 2003 and was originally constructed in 1974 as part of the Bratenahl Local School District. The Center has sat dormant since 2015 with most utilities disabled while the building is not being utilized.

All recommendations and findings included in this report are be based upon the local governing codes, remaining life expectancy of each system and industry standards.

Opinions of Probable Costs listed here within this document shall not be constituted as a biddable number and only represents' s EPIC Engineering Groups best judgment from industry standards. EPIC Engineering Group does not guarantee the probable costs to an actual bid or cost to the client for construction.

Bratenahl Center

Electrical Systems & Components:

A. Existing Power Distribution System

The electric service for the facility consists of an underground primary service lateral at 4.3 /13.2kV. The primary energizes a pad mount 225KVA utility transformer and an underground secondary service lateral at 600 amperes, 277/480 volts, 3-phase, 4-wire is brought to a main distribution panel located first floor main electrical room.
The main distribution panel and all other electrical distribution equipment is manufactured by Schneider Electric (Square 'D'). They appear to be in excellent condition and show no signs of wear or damage.
A normal life expectancy for this type of electrical distribution equipment is 25-30 years if not longer when properly maintained.

Power Distribution System Recommendation

It is imperative that electrical distribution equipment be on an annual maintenance program. Once a year the equipment should be inspected, maintained, and cleaned. In addition, nothing should be placed within a 3'-6" space in front of any distribution equipment for safety and code violation concerns. The current power distribution system is in excellent condition and can be reused without hesitation although since this facility has not been in use along with the building water issues, maintenance would need to be done to check terminations, remove dirt and ensure no water has penetrated this system.

B. Lighting

The existing lighting in the interior of the building consists primarily of fluorescent tube technology and most of the space light fixtures contain parabolic louvers along with many downlights throughout the building that contain the triple tube fluorescent lamps.

The existing lighting on the exterior of the building consists primarily of high intensity discharge (HID) type luminaires located on the site poles with triple tube fluorescent fixtures located on the exterior building walls.
Many of light fixtures throughout the building are at their end-of-life expectancy and will need to be replaced with new lamps, ballasts, or fixtures.

Lighting Recommendation

The interior and exterior lighting systems currently utilize a combination of fluorescent and high intensity discharge type technology. Although acceptable, light emitting diode (LED) technology has improved to the point where most of today's light fixtures, both interior and exterior, incorporate this type of technology.
We recommend that all building lighting be replaced with new LED fixtures. You will find they save a substantial amount of energy, last much longer than fluorescent/HID type fixtures and have no depreciation in light output over the life of the fixture. It should be mentioned that lighting control components which automatically turn the light fixtures "on and off" or reduce their output (dimming) in building spaces is a federal government requirement. Thus, if and when the current light fixtures are upgraded to LED, lighting control components must be installed because the building presently does not have any.

C. Exit/Egress Systems

The existing exit/egress lighting system on the interior of the building consists of a battery type LED exits and emergency lights. They are in excellent condition. An upgrade of this lighting system would not be necessary for several years because the technology is acceptable and the

light fixtures have a rather long-life expectancy, however, additional would need to be added to comply with the required 1fc at egress paths. Code required exterior emergency lighting as have not been installed and would need to be added.

D. Fire Alarm System
The existing facility currently contains hardwired non-addressable Simplex 4005 panel. It consists of initiation devices, notification devices, a remote annunciator panel and main control panel along with an extender panel. It is an automatic system and calls the fire department if fire/smoke is detected in the building. This panel/system is now obsolete and will need to be replaced.

E. Telephone/Data
The conduit infrastructure for communications enters the facility from a communications manhole near the transformer. The conduit infrastructure consists of (2)-4" and (1) 2" conduits which runs from the Manhole to a pull box located on the building exterior and stubs into the main communications room in the building. One of the 4" contain cable for the CATV system and telephone/data systems used in the building, the second 4" conduit only contains a pull wire.
All data cabling is cat 6 type which can be reused. The current IT racks are in excellent conditions along with patch panels and can also remain and be reused. The upper floor IT room 2 section rack contains Av system electronics and surge suppression, these components would need to be reviewed for reuse by an AV consultant but are all in excellent condition.

F. Summary & Recommendations
X…

Mechanical Systems & Components:

A. Comfort Cooling/Heating Systems
Primary Comfort Cooling and Heating is provided by four (4) natural gas fired/electric packaged units. Three (3) of the four (4) units are mounted on concrete pads at grade with one unit located on a flat roof portion over the former kitchen area. These units were replaced in 2003 as part of the renovations of the facility and at 19 years of age have exceeded the ASHRAE recommended life expectancy of 15 years for this type of equipment. Each unit is provided with a barometric economizer as well CO2 ventilation control. Each unit is provided with its own temperature sensor and is "single" zone control only at this time. Each unit is provided with a return air duct smoke detector interlocked with the fire alarm system. These units have not been operational for at least six (6) years.

Ductwork extends from each unit and is fully ducted and insulated before connection to various steel powder coated air devices.

Individual ductless split type air conditioning units are provided for each of the three (3) IDF/Electrical rooms around the facility. Installed as part of the 2003 renovation these systems are four years past their recommend life expectancy. Each of these units are currently provided with R-22 refrigerant that has been phased out of use in the industry due to its ozone effects. Replacement refrigerant is available but is very costly.

Miscellaneous heating is provided at stairwells and entryways through the use of electric cabinet heaters. These heaters appear to need repair based on their current state.

B. Ventilation Systems

Ventilation for the facility is currently provided through the four (4) packed units as described above. Any excess air is relieved through the barometric relief dampers provided within the units.

Various roof type exhaust fans are provided for restrooms, electrical rooms, food service, former science labs, food service and attic ventilation. These belt driven fans were installed in 2003.

C. Plumbing Systems – Building Drainage

Building drainage extends from the building to the Village's sewer system in Lakeshore Blvd. This system consists of both sanitary and storm piping.

Sanitary vent systems where visible appeared to be installed in PVC piping while acid waste systems exist for the former Science Classrooms. An acid waste neutralization tank

D. Plumbing Systems – Domestic Water and Natural Gas

Domestic water is served by the Village with a meter located in a pit at the street. The service director indicated that this meter setting was leaking prior to the water being shut-off to the building. The 3" water service extends up through the floor into the Lecture Hall storage area with an ASSE 1013 reduced pressure back flow preventer. Domestic water is distributed overhead through the ceiling space in insulated copper piping. Much of this insulation has been damaged due to ongoing roof leaks in the building.

Plumbing fixtures were upgraded as part of the 2003 renovations. Valves and handles are manual type and the water closets are wall mounted flush valve fixtures. All lavatories appear to be provided with appropriate ADA wrap kits.

Domestic Hot Water is produced by a single natural gas fired storage type water heater located in the room adjacent to the steam boilers. This water heater carries an input rating of 40,000 BTUH with 50 Gallons of storage and was constructed in 2006. At 16 years of age this unit has exceeded its recommended life expectancy.

A single thermostatic mixing valve is located adjacent to the water heater to limit hot water temperature to 110 ^{o}F to hand washing fixtures.

A natural gas meter is located on the exterior of building where multiple low pressure branches extent underground to the various pieces of equipment. Natural Gas piping is run in black steel.

E. Miscellaneous Systems

Temperature controls appear to be standalone thermostats throughout the building.

F. Summary & Recommendations

1. Operational Condition of HVAC Equipment?
2. Mold Concerns?
3. Water Damage on Insulation?

Fire Protection Systems & Components:

The facility is currently provided with an automatic dry fire suppression system. The system has not been active since 2015 and the service director indicated a sprinkler head had failed in recent years causing the system to be drained.

The dry system is provided with a dry valve and air compressor. It was indicated by the service director that the dry valve needed repair.

Existing sprinkler heads are semi-recessed type with chrome escutcheons.

COMMUNITY CENTER

The Community Center is a (1) story, approximately 31,000 SF building with a full basement.

- **Basement: Approx. 14,000SF**
- **Level 1: Approx. 17,000 SF**

Originally built in 1907-1908 as a public community school. According to the Village of Bratenahl Historical Society: *The Bratenahl Elementary School (grades one through eight), commonly referred to as the Bratenahl School, located at 10300 Brighton Road, opened for classes on February 4, 1907.*

The old Bratenahl Elementary School was build in four phases.
1908 2-Story, classroom building
1910's 2-floor classroom addition
1933 gymnasium and classroom addition
1037 kindergarten classroom

According to other documentation provided by the Village of Bratenahl: *The public schools closed permanently on June 30, 1981. The Village re-acquired the 32,500 square foot, old Bratenahl Elementary School in 1989 form the City of Cleveland School system and currently uses it as the Bratenahl Community Center. The two-acre sites is in a residential neighborhood. Only minor renovations have been done to the building since the Village re-acquired it and most of the facility.*

The existing building is in overall fair-poor condition. The building envelope appears to be in fair to poor condition and requires significant deferred maintenance work. Overall, the building does not appear to meet basic accessibility standards as required by the Americans with Disabilities Act of 1990 (ADA), and there are several shortcomings. Notable areas of non-compliance include:

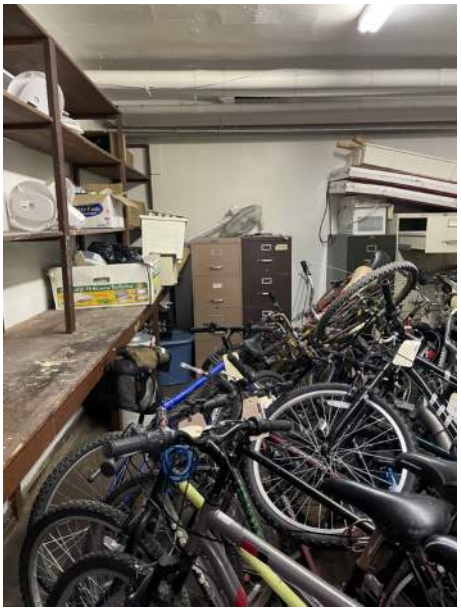
Grade level access to the elevated first floor
Access to basement level
Compliant restrooms
Means of egress
General required amenities - drinking fountains, etc...

ZONING ANALYSIS

The property is approximately 2 acres located at 10300 Brighton Road. The building is centrally located on the property with Burton Avenue to the South, Brighton Road to the North, and residential housing to the East and West.

Parcel Number:
#631-15-016

Use District:
The property is classified under R3 – Standard One-family Residence



District. The structure best classifies under the zoning code as Municipal Building and this use is permitted in the R2 District.

Parking:
There are no specific parking requirements for Municipal Buildings within a R3 District. However, having 1 parking space for every 200 - 300 Square Feet of building is in line with standard parking requirements for recreational and community centers. There are approximately 40 parking spaces provided on site and 10 additional spaces along Brighton Road for a total of approximately 50 dedicated spaces. During a large event additional overflow parking occurs on Brighton Road, Burton Avenue and other surrounding streets. Calculations show a need of 100-160 spaces. However, the building's actual use does not reflect the need for additional parking at this time. If the building was to be utilized in its totality current parking provisions would be insufficient.

CODE COMPLIANCE

Applicable Codes
2017 Ohio Building Code, ICC/ANSI A117.1-2009, 2017 Ohio Plumbing Code, 2017 Ohio Mechanical Code, NFPA 70-17; 2017 Ohio Energy Code, 2017 Ohio Fire Code, 2010 ADA Standards

The existing structure is a considered Use Group Assembly A3 (Recreation and Community Hall by the Ohio Building Code. The building is approximately 32,000 SF, 1 story with basement constructed of brick with block backup wall system. The basement is slab on grade while the first floor is wood framed. The roof is constructed with wood joists on masonry bearing walls. In the gym and stage area the roof structure was observed to be a combination of steel bar joists and concrete flat slab on concrete beams. No fire proofing was visible on any structural elements observed. The building construction most closely coincides with Type IIIB, unprotected, construction. Fire suppression was not observed in the building.

General building heights is within the allowable requirements. However, the building area exceeds the maximum allowed. Any renovations, alterations or additions would likely require the entire building to be fully suppressed.

Means of Egress

Approximate Occupant Loads for the building are as follows:

Basement	280
Level 1	340

Minimum Number of Exits Required

Basement	3
Level 1	3

The existing stairs are non-code compliant Thus, both the basement and Level 1 are not provided with adequate emergency egress at this time.

OBC Chapter 29 - Plumbing Systems

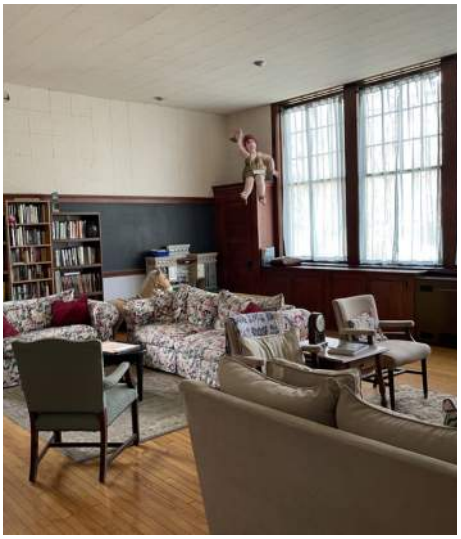


Table 2902.1 - Minimum Number of Required Plumbing Fixtures

Fixture Type	Required
Water Closet	6 Male | 11 Female
Lavatories	2 Male | 2 Female
Drinking Fountain	2

ENERGY CODE

The existing building predates the Ohio Energy Code, any new alterations, repairs or building systems upgrades will be required to comply with current energy code requirements. Visual observations suggest detailing for wall system assembly shows no indication of attention to potential thermal bridging or air and vapor movement. Windows and door systems in the exterior envelope are old and worn. Signs of air infiltration is evident. Change of use of a space resulting in an increase in fossil fuel consumption or electrical consumption requires that space be brought up to current code.

ACCESSIBILITY

All Buildings are required to be compliant with Ohio Building Code Section 3411, Accessibility for Existing Buildings. All municipalities are required to have accessible code compliant buildings and amenities. If buildings are determined to not be code compliant a public entity must perform a self-evaluation and develop a transition plan if structural changes are necessary for achieving program accessibility.

In 2020, Bratenahl Village Architect, Van Auken Akin Architects completed an ADA Compliance Report for the Bratenahl Community Center to bring the building up to Code Compliance.

An exhaustive review was not completed for accessibility, the following observations were noted.

An adequate number of accessible parking spots are located on the site for the current amount of spaces required. However, if additional parking spaces were added additional accessible parking spots would be required. There is currently no accessible access to the first floor or basement of the building. All entrances from the public way require the traversing of stairs up from grade level to first floor level or down to the basement.

Internal circulation for the building includes multiple level changes, all traversed via non-accessible stairs.

Internal elements of accessibility requiring attention include but are not limited to the following:

1. Several Door handles are non-compliant knob type and should be switched to a type not requiring tight grasping, pinching, or twisting of the wrist.
2. The internal stairs of the building do not meet standards. The width is

not adequate and handrails at internal stairs do not provide the proper extensions at top and bottom of stairs
3. No ADA drinking fountains were observed.
4. Most of the building's restrooms do not appear to meet ADA requirements for clearances, turning radius requirements and grab bars.
5. Compliant signage is also required.
6. Push and pull clearances for doors and reach ranges should also be further analyzed.

2022 Bratenahl Condition Assessments

Community Center – Facade

Original Building: Built circa 1907

- East Addition: Built 1939.
- 1.5 Stories
- Exterior Walls: Multi-Wythe Masonry
  - Clay Brick Masonry
  - Sandstone Accents
  - Decorative Wood Cornice and Fascia
- Roof:
  - Low Sloped Membrane Roof
  - Sheet Metal Copings at Perimeter Walls

Bratenahl Community Center – Facade Observations & Recommendations

1. Sheet Metal Copings: Sheet metal copings cap the top of the exterior walls around the perimeter of the building. A drip edge is provided within the coping to facilitate shedding of water way from the vertical face of the wall. Concealed splices are provided between adjacent sections of sheet metal within the coping. It appears that the cleats that secure the coping to the exterior wall are widely spaced as the vertical face of the coping was observed to displace inward and outward.

We recommend removal and replacement of the sheet metal copings. The copings should be secured to the exterior wall with cleats that are 4-inches wide, minimum, and spaced 12-inches on center, maximum, or are continuous around the perimeter of the roof.

2. Cornice: A decorative cornice, as well as trim above and below the cornice, consists of painted wood at the top of the wall around the perimeter of the original building. The cornice projects out the face of the wall 12-inches with a decorative dentil below. (A dentil, which consists of rectangular blocks that are closely spaced, are typically installed directly below the projecting cornice to form a decorative band.) The paint was observed to have cracked, blistered, and peeled within the cornice and trim, exposing bare wood. Moisture accumulation has resulted in deterioration of the wood at isolated locations.


We recommend removal and replacement of the isolated portions of deteriorated and rotted wood, application of an epoxy hardener where it is soft, and cleaning and painting the wood cornice to extend its service life.

3. Cornice Cap: The top of the projecting cornice is capped by sheet metal. The sheet metal is bend downward at the edge of the cornice; however, we did not observe a drip edge. We observed blistered and peeling paint, moisture staining, and deterioration of the wood directly below the cap. The sheet metal was previously coated/painted; however, the coating is blistered and peeling. We observed surface corrosion of the metal as well as corrosion stains on the wood below.


We recommend removal and replacement of the existing cornice cap with new sheet metal with a baked Kynar coating that matches the color of the cornice. Industry standards recommend providing a hemmed drip edge, bent ½-inch away from the face of the wall, to facilitate shedding of water away from the wall.

4. Wood Fascia: A painted wood fascia is located at the top of the wall around the perimeter of the east addition. The paint was observed to have cracked, blistered, and peeled at isolated locations.

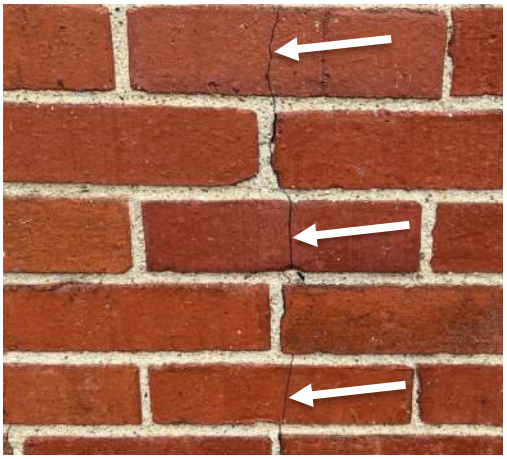

We recommend removal and replacement of any isolated portions of deteriorated and rotted wood, application of an epoxy hardener where it is soft, and cleaning and painting the wood fascia to extend its service life.

5. Brick Masonry: The exterior walls consist of multi-wythe clay brick masonry with sandstone accents. The exterior brick masonry walls within the original building and the gymnasium contain headers within every second course. (A header is a brick unit that is installed perpendicular to the face of the wall to tie the wythes/layers of brick masonry together.) The brick is recessed every sixth course at corners and pilasters between windows within the original building, forming decorative quoins within the brick.

   The multi-wythe masonry walls perform as a barrier system. (A barrier wall system is intended to prevent moisture penetration, as compared to a modern cavity/drainage wall system that allows water to penetrate but directs it back out of the exterior.) Effloresence was observed on the exterior face of the brick masonry at isolated locations, particularly at the top of the walls, indicating moisture retention within the wall. (Efflorescence is the deposit of water-soluble salts, inherent in both the brick and mortar, on the surface due to evaporation of moisture within the masonry.) Additionally, vines were observed growing on the exterior brick masonry at isolated locations. The vines retain moisture against the exterior walls.


We recommend removal of any vines, as well as cleaning the brick masonry, and applying a clear water repellent sealer after completion of masonry repairs to minimize moisture penetration and freeze-thaw deterioration of the brick and to extend its service life. (Freeze-thaw deterioration is cracking and spalling caused by cyclic freezing and thawing. Water that is absorbed in the exterior wall material freezes, expands, breaks down the material, and then thaws leaving voids within the material.)

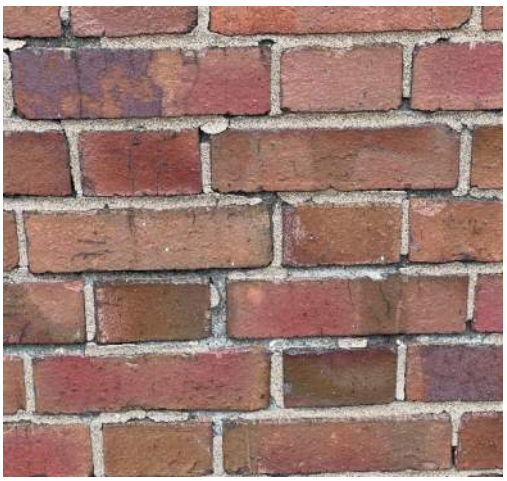
a. Cracks & Spalls: The brick masonry was typically observed to be in overall good condition with moisture accumulation and deterioration at isolated locations. Cracking and displacement of the brick were observed at isolated locations, particularly due to corrosion of embedded steel or moisture expansion of the brick masonry. (When the clay material of the brick absorbs moisture, it expands. When it dries, the clay shrinks, but does not shrink entirely back to its original size. Over time, the brick continues to grow. In modern construction, brick expansion joints are installed to accommodate the moisture expansion. However, in historic multi-wythe masonry, brick expansion joints were not provided, and vertical cracks can result from moisture expansion.)



We recommend removal and replacement of brick masonry at the isolated areas of distress to minimize moisture penetration into the exterior walls and freeze-thaw deterioration of the masonry.

b. Mortar: The mortar was originally struck flush with the exterior face of the brick. The mortar was observed to be friable, to have lost bond, and to contain voids at isolated locations. The mortar has weathered to a raked profile, approximately 1/8-inch to 1/4-inch deep in areas of moisture accumulation within the brick, particularly below the water table. (A raked profile is where the face of the mortar is vertical and recessed within the joint.)

We observed evidence of previous mortar repointing at isolated areas. The repointed mortar is thin in profile and has cracked, lost bond, and contains voids revealing moisture staining and biological growth within the joint.



We recommend repointing weathered and deteriorated mortar joints to reduce water penetration into the exterior walls and potential subsequent freeze-thaw deterioration of the masonry. (Repointing is the process of the removal and replacement of mortar to a partial depth.) We recommend removal of the mortar to a minimum depth of ¾-inch and replacement with new mortar in ¼-inch deep lifts.

c. Lintels: Painted steel lintels are installed over masonry openings (windows, doors, and louvers) to support the masonry above. Due to the age of the building and the addition, through-wall flashing was not installed at the lintels. Surface corrosion of the steel was typically observed while evidence of the development of pack rust was observed at isolated locations.

We recommend removal and replacement of the steel lintels that have developed pack rust, experienced section loss, or have severely deflected, with new with new galvanized steel lintels. In conjunction with the lintel replacement, we recommend installation of new stainless-steel sheet metal through-wall flashing to protect the embedded steel.

6. Sandstone: Sandstone is installed within the exterior masonry walls as accent bands at the top, as a water table, and at the base of the exterior walls of the original building, as pilaster caps within the gymnasium, as well as at windowsills throughout the building. Moisture and atmospheric staining were observed at throughout the sandstone. Biological growth was observed at isolated locations due to moisture accumulation within the stone.

We recommend cleaning the stone masonry and applying a clear water repellent sealer after completion of masonry repairs to minimize moisture penetration and freeze-thaw deterioration of the sandstone and to extend its service life.

a. Cracks, Delaminations & Spalls: Hairline cracks, delaminations, and spalls were observed within the sandstone at isolated locations, particularly within areas of moisture accumulation. (A delamination is a separation within the stone. When a delaminated portion breaks away, it is a spall.)

We recommend routing the cracks, removal of loose material at delaminations and spalls, and patching the stone with a stone repair mortar to minimize the penetration of moisture and continued freeze-thaw deterioration of the masonry. We recommend removal and replacement of stone units that have significantly lost section.

b. Mortar: The mortar within the stone masonry was observed to be in overall poor condition. The mortar, which was struck flush with the face of the stone, is friable and has typically cracked, lost bond, or is missing at various locations.

We recommend repointing the mortar 100 percent within the sandstone to minimize moisture penetration and freeze-thaw deterioration of the stone.

c. Projecting Stone Water Table: The stone masonry projects out from the exterior face of the wall at the water table. The mortar bed joint between the exterior wall and the top of the projecting masonry, which is susceptible to moisture accumulation and freeze-thaw deterioration, has been previously repointed. However, the repointed mortar was observed to have cracked, lost bond, and to be missing at isolated locations.

We recommend, after repointing the mortar bed joint between the stone masonry and the projecting stone, the installation of a cove joint of silicone sealant to minimize moisture penetration into the joint. We recommend installing silicone joint sealant, which has a 20-year anticipated service life, versus 5 to 7 years for urethane.

d. Stone Sills: The windowsills throughout the building are sandstone. The bed joint at sills that extend into the brick jambs, and the mortar head joints at the ends of sills of equal width to the masonry openings, are susceptible to moisture penetration and freeze-thaw deterioration.

We recommend, after repointing the mortar bed joints between the stone masonry and the projecting stone sills as well as the vertical/head joints between the sills and the adjacent brick jambs, the installation of a cove joint of silicone sealant to minimize moisture penetration into the joint.

7. Windows, Doors, & Louvers

a. Wood Framed Windows: The windows within the Bratenahl Community Center typically consist of the original painted wood windows. The paint was observed to have cracked, blistered, and peeled, exposing bare wood. The perimeter joint sealant, which consists of urethane, has hardened, cracked, and lost bond to at isolated locations.

We recommend removal and replacement of the wood framed windows with new thermally broken windows that would improve the energy efficiency of the building. If budget constraints do not allow replacement, we recommend the following. At exposed portions of the wood window frames, we recommend repair of any damaged wood, or application of an epoxy hardener where it is soft, and cleaning and painting the window frames. We recommend removal and replacement of the perimeter joint sealant with silicone.

b. Metal Grates: Painted steel grates are installed at three of the windows on the west elevation of the gym. The paint was observed to have cracked and peeled, and surface corrosion of the steel was observed.

We recommend removal and disposal of the metal grates during replacement or restoration of the windows. If the grates are desired for security or protection of the glass, we recommend replacement and installation of new at the additional west elevation windows. If budget constraints do not permit replacement, we recommend cleaning and painting the metal grates to extend their service life.

c. Metal Framed Windows: The 1st Floor windows on the south elevation of the original building, as well as the west elevation of the addition, consist of metal windows. The frames within the original building are in overall good condition; however, the glazing putty at the perimeter of the glass and the urethane perimeter joint sealant were observed to have hardened, cracked, and to be missing at isolated locations.

The paint on the frames of the metal windows within the addition has cracked, blistered, and peeled, and surface corrosion of the steel was observed. The perimeter joint sealant, which consists of urethane, has hardened, cracked, and lost bond to at isolated locations.

We recommend removal and replacement of the metal framed windows with new thermally broken windows that would improve the energy efficiency of the building. If budget constraints do not allow replacement, we recommend cleaning and painting the metal frames, removal, and replacement of the glazing putty with silicone wet sealant, as well as removal and replacement of the perimeter joint sealant with silicone.

d. Glass Block: Glass block has been installed within various basement windows within the original building and the addition. The glass block was observed to be in overall good condition; however, shrinkage cracks were noted within the mortar. Joint sealant is installed at the perimeter of the glass block windows. The urethane sealant was observed to have hardened, cracked, and to have lost bond at isolated locations.

We recommend repointing the mortar at isolated locations of deterioration within the glass block, as well as removal and replacement of the perimeter joint sealant with silicone.

e. Wood Doors: The doors within the original building and the addition consist of painted wood doors and frames. The paint was observed to have cracked, blistered, and peeled exposing bare wood. The perimeter joint sealant was observed to be urethane that has hardened, cracked, and lost bond at isolated locations.

To extend the service life of the existing doors, we recommend cleaning and painting the wood doors and frames, and removal and replacement of the perimeter joint sealant with silicone joint sealant. Alternatively, removal and replacement of the doors with new energy efficient doors could be performed.

f. Metal Doors: The doors on the west elevation of the gym consist of painted metal doors and frames. The metal doors are in overall good condition; however, the paint has weathered. It appears that metal trim was installed over an existing frame. Joint sealant is installed at the metal-to-metal joint at the perimeter of the frame and at the metal-to-brick joint at the perimeter of the trim. The urethane was observed to have hardened, cracked, and to have lost bond at isolated locations.

We recommend cleaning and painting the metal doors, as well as removal and replacement of the joint sealant with silicone at the perimeter of the frames and the perimeter of the trim.

g. Plywood Infill: Painted plywood infill was observed at locations of former louvers or vents within the exterior walls. The paint was observed to have weathered, cracked, blistered, and peeled, exposing bare wood. Joint sealant is installed at the perimeter of the wood infill; however, the urethane was observed to be thin in profile and to have hardened and cracked.

The sill within the former louver/vent openings consists of copper sheet metal. The sheet metal is hemmed (turned under) but lacks a drip edge to break the capillary action of water draining off its surface. The copper extends out the face of the wall within the brick masonry; however, at louver/vent openings located directly over the water table, the outer edge of the sheet metal is located on top of the stone.

We recommend removal of the plywood infill and copper sheet metal sills and infill with clay brick masonry. If budget constraints do not permit infill with new brick, we recommend cleaning and painting the infill, replacement of the perimeter sealant with silicone, as well as installation of silicone joint sealant below the copper sheet metal to the brick or along the edge of the copper to the sandstone water table.

8. Miscellaneous:

   a. Main Entry Stair: Stone stairs lead to the main entry doors at the west façade. The mortar head and bed joints within the stone treads were observed to have cracked, lost bond and to contain voids at isolated locations; settlement of the treads at the center of the stair has resulted in opening of the head joints. Stone barrier walls are located on each side of the stair. The mortar joints within the barrier walls were observed to have cracked, lost bond, and to contain voids at isolated locations. Moisture accumulation has caused staining and development of biological growth throughout the treads and barrier walls. The railings consist of painted wrought iron with base plates anchored to the stone. We observed blistering and peeling of the paint, and surface corrosion, at isolated locations, particularly at the base of the posts.




We recommend the following repairs within the main entry stairs:

- Removal and resetting of the stone treads, with repair of the underlying structure as required.
- Stone patching at cracks and spalls within the stone with a repair mortar.
- Reinstallation of the treads with full mortar head and bed joints, with head joints raked back to allow for the installation of backer rod and silicone joint sealant.
- Installation of cove joint sealant at the stair treads and landings, with silicone. (Cove joints are the joints at the intersection of horizontal and vertical elements.)
- Mortar repointing within the stone barrier walls.
- Cleaning of the stone and application of clear water repellent.
- Cleaning and painting wrought iron railings and installation of cove joint sealant at the perimeter of the railing post base plates.

b. West Elevation Stairs: Two exterior stairs lead up to the 1st Floor on the west elevation of the original building. The stair consists of stone treads and landing with a perimeter multi-wythe brick masonry barrier wall capped with sandstone copings. With the exception of the bottom two treads, the treads and landings consist of solid pieces of stone. Joint sealant was observed at the cove joints and the head joints within the bottom treads. The urethane was observed to have hardened, cracked, and to have lost bond at isolated locations.

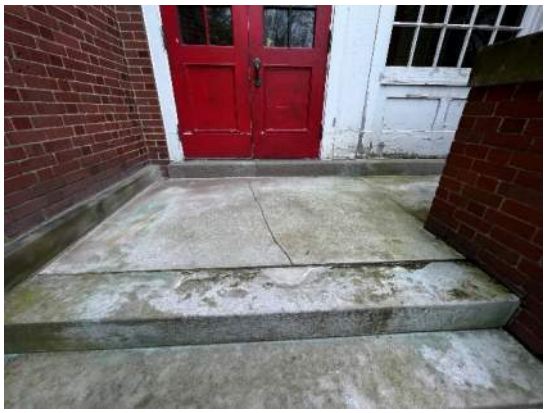
The mortar within the coping head and bed joints have cracked, providing a direct path for moisture to penetrate the barrier walls. Accumulation of moisture has resulted in cracking, spalling, and displacement of the brick masonry at both stairs.




We recommend removal and reconstruction of the west exterior stairs and masonry barrier walls with installation of through-wall flashing below the copings to minimize moisture penetration into the masonry.

c. Exterior Stone Stairs: Two additional stone stairs leading to the 1st Floor are located on the north elevation of the original building. The stair consists of stone treads and landing with a perimeter multi-wythe brick masonry barrier wall capped with sandstone copings. Moisture accumulation, cracks, cracks, and spalls were evident within the stone. The mortar joints within the stone treads were observed to have cracked, lost bond and to contain voids at isolated locations. The handrails consist of painted steel pipe rails anchored to the exterior masonry walls of the building.



We recommend the following repairs at the exterior stone stairs:

- Routing the cracks, removal of loose material at delaminations and spalls, and patching the stone with a stone repair mortar.
- Installation of cove joint sealant at the stair treads and landings, with silicone.
- Cleaning and application of clear water repellent to minimize moisture penetration into the stone treads and landings.
- Removal and reinstallation of the stone copings for installation of stainless-steel sheet metal flashing.
- Brick replacement and mortar repointing at isolated locations of deterioration within the barrier walls.
- Masonry cleaning and application of clear water repellent to the masonry barrier walls.
- Cleaning and painting the steel pipe handrails as ongoing maintenance.

d. Cast-in-Place Concrete Stairs: Exterior cast-in-place concrete stairs providing access to the 1st Floor are located on the south elevation of the original building and the north elevation of the addition. Additional cast-in-place concrete stairs provide access to the basement on the north and west elevations of the original building and the north elevation of the addition. Staining and biological growth are evident within the cast-in-place concrete due to moisture accumulation as well as corrosion of the embedded wrought iron railings. Cracks and spalls we observed at isolated locations due to freeze-thaw deterioration as well as corrosion of the embedded railings. Cracking, peeling, and blistering of the paint has also resulted in surface of the wrought iron at isolated locations.




We recommend the following within the exterior cast-in-place concrete stairs:

- Sawcut the perimeter, removal of loose material at delaminations and spalls, and patch the concrete with a repair mortar.
- Rout cracks within the concrete for installation of silicone joint sealant.
- Installation of cove joint sealant at the intersection of the stair treads and landings to the walls and curbs, with silicone joint sealant.
- Cleaning and painting the wrought iron railings.
- Installation of silicone cove joint sealant at the perimeter of embedded railing posts.
- Application of clear water repellent to minimize moisture penetration into the concrete.

e. Exposed Concrete: The underside of the structural slab at the secondary stone stairs is exposed. Cracks, delaminations, and spalls were observed within the concrete due to corrosion of the embedded steel reinforcement.

We recommend removing loose material, sawcutting the perimeter of the repair areas, cleaning and coating the embedded steel with a corrosion inhibitor and performing concrete patch repairs at the isolated locations of deterioration. If a uniform appearance is desired, we recommend applying a breathable stain to the ceiling of the walkway/arcade so as not to trap moisture within the concrete.

f. Window Wells: Window wells are located on the north, south, and east elevations of the original building at the basement windows. The perimeter walls of the south elevation window wells are constructed of clay brick masonry with sandstone copings; the top of the stone is level with the surrounding pavement and metal grates span between perpendicular window well walls. A cementitious parge coat was applied to the window well at the base of the south elevation concrete stair. Cracks, delaminations and spalls were observed within the parge coat due to freeze-thaw deterioration.

The perimeter walls of the north and east elevation window wells consist of cast-in-place concrete with painted wrought iron railings embedded into the top of the concrete. We observed cracking, blistering, and peeling of the paint, as well as surface corrosion of the wrought iron.

The floor of the window wells consists of a continuous cast-in-place concrete slab-on-grade. The top of the slab was observed to be located one brick course below the basement sandstone sills. Joint sealant is not installed at the perimeter cove joint. A single drain was typically observed within the window wells.


We recommend the following within the window wells:

- Mortar repointing within the masonry window well walls. We recommend raking back the mortar at the sandstone copings to allow for installation of backer rod and joint sealant.
- Removal and replacement of the cracked, delaminated, spalled, and missing parge coat.
- Installation of cove joint sealant at the perimeter of the window wells.
- Cleaning and application of clear water repellent to the masonry and cast-in-place concrete.
- Cleaning and painting of the metal grates.
- Cleaning and painting the wrought iron railings and installation of cove joint sealant at the embedded railing posts.
- Removal of any debris within the window well, and cleaning the drains, as ongoing maintenance.

g. Exterior Platform: A portion of the basement extends out from the south elevation and consists of an exposed 11-inch-thick cast-in-place concrete slab with perimeter exterior brick masonry walls. The top of the concrete slab, which is negligibly sloped, is weathered, exposing the aggregate. Painted wrought iron railings, with posts embedded in the concrete, are located at the perimeter of the platform. We observed cracking, blistering, and peeling of the paint, as well as surface corrosion of the wrought iron.

Moisture penetration and accumulation has resulted in freeze-thaw cracking and spalling of the brick masonry and mortar below the slab.


We recommend the following within the exterior platform:

- Installation of a waterproof deck membrane on the top and exposed edges of the cast-in-place concrete slab.
- Cleaning and painting the wrought iron railings and installation of cove joint sealant at the embedded railing posts.
- Brick masonry replacement at locations of distress and deterioration.
- Mortar repointing 100 percent within the exterior brick masonry within the platform.
- Cleaning and application of clear water repellent to the masonry.

Limitations

This report is based on conditions existing as of the date of the Survey and assumes the original design and construction of the Project met appropriate standards. Unless otherwise noted in this report, review of conditions hidden or indeterminable from visual assessment are excluded from THP's scope of work.

THP's professional services are performed in accordance with generally accepted professional standards of care appropriate for the size, complexity, schedule and other characteristics of this project, and the recommendations provided are appropriate given the scope of our review. THP cannot precisely predict when structural and waterproofing components may fail or otherwise require additional repair. This report contains no express or implied warranty concerning the observations, conclusions, and recommendations. Conditions change with time and use of the facility, thereby meriting further inspection as well as potential changes in the recommendations contained herein. It is possible that the need for repairs or maintenance identified through this report may be accelerated due to conditions or events outside of THP's control, which may include events that occur after the Survey was completed. It is critical that the Owner timely implement the repairs and maintenance identified in the report and periodically re-evaluate for future repairs and maintenance.

The conclusions and recommendations in this report are provided to the Owner for repair/maintenance planning and budgeting purposes. This report is not intended to be used as a construction document.

2022 Bratenahl Condition Assessments

Community Center – Structural

1. Structural Systems

   a. Building Data:
   The original construction drawings were not available for review. Building structure is only what could be observed during the review.
   Total building area: 33,297 SF
   Levels: Lower Level, Gym Level, and First Floor Level.

   b. Design Loads:
   Assumed floor live loads are: 60 psf for offices and classrooms; 80 psf for corridors; 100 psf for stairs. 25 psf for roof.
   Seismic loading and wind loading were not listed on drawings.

   c. Foundation System:
   Foundation system is unknown.

   d. Floor System:
   Elevated floors are constructed with wood joists on masonry bearing walls.

   e. Roof System:
   The roof is constructed with wood joists on masonry bearing walls.
   In the gym and stage area the roof structure was observed to be a combination of steel bar joists and concrete flat slab on concrete beams.

   f. Lateral System:
   Not listed on the drawings, assumed to be masonry shear walls.

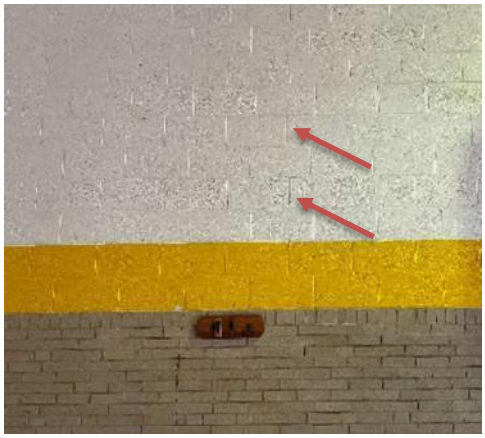
   g. Exterior Wall:
   The exterior walls are brick masonry mass walls.
   At the gym and stage area the exterior walls are CMU walls with an exterior brick.

2. Observations/Assessments

   THP visited the site on May 5, 2022. The building was assessed for visible evidence of structural distress, and potential structural concerns that need to be addressed when renovating the building. Structure concealed by finishes were no able to be reviewed.

   We did not observe distress in partitions or ceilings inside the building. The main building structure is in overall good condition.

a. Vertical Cracks were observed in the CMU and Brick masonry Gym walls at isolated locations. The vertical cracks were observed on the interior of the structure.



b. Distress was observed at the roof structure bearing at one location on the on the north exterior wall of the gym.

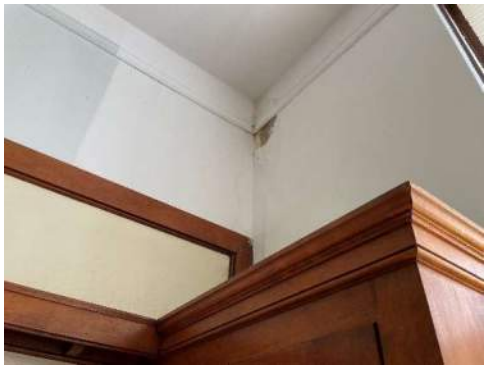
c. An interior CMU wall separates the gym and stage areas. At the intersection of the interior wall and the west exterior wall a wide crack is present on both sides.

d. In the southwest corner of the stage/gym building, moisture staining is present.

e. Typically, the interior side of the basement walls was observed to be moisture stained showing high vapor drive into the building.

f. At the exterior door on adjacent to the current men's locker room on the east side of the building to an area well, the concrete lintel is spalled.

g. Moisture damage was observed at the southeast corner of the Bratenahl room on the exterior wall.



3. Recommendations
    a. When renovating this building, an evaluation of the lateral system will be required if the risk category changes. If the building area is modified or the structural system is significantly altered, new seismic load resisting systems may be needed to meet the requirements of the current codes.
    b. Continued exposure to moisture in both wood framed areas and CMU areas will lead to deterioration and possible structural instability. Locations of moisture damage to the finishes should be opened during a renovation and review for any needed repairs. Exterior basement walls with moisture staining should be properly waterproofed and any needed repairs performed.
    c. The gym and stage masonry walls are recommended to be repaired.

Executive Summary

This report is to assess the condition, age, and adequacy of the installed mechanical, electrical, and plumbing systems for two facilities currently owned and operated by the Village of Bratenahl located just east of downtown Cleveland on the water's edge of Lake Erie. EEG was assisted in their assessment walk though with Service Director Joe Zalar. Joes' expertise and knowledge of both buildings was exceptional and greatly assisted with the engineering review performed.

The Historical Bratenahl Community Center is a former early 20th century school building that has long stood as the local Community Center serving various functions. Many of the mechanical, electrical, and plumbing systems date back to the original construction 90 years ago, while some equipment updates have occurred.

All recommendations and findings included in this report are be based upon the local governing codes, remaining life expectancy of each system and industry standards.

Opinions of Probable Costs listed here within this document shall not be constituted as a biddable number and only represents' s EPIC Engineering Groups best judgment from industry standards. EPIC Engineering Group does not guarantee the probable costs to an actual bid or cost to the client for construction.

Bratenahl Community Center

Electrical Systems & Components:

Objective

A site survey was performed for the purposes of surveying the existing facility, making an assessment of the electrical systems and documenting the findings in a written report. The survey was a visual only survey and not intended to be an all-inclusive detailed report. The items reviewed included the power distribution, lighting and miscellaneous systems. NAME UTILITY COMPANY was contacted to gather existing power demand.

A. Existing Power Distribution System

The electric service consists of an overhead 200 ampere, 120/240-volt, 1 phase, 3wire service from an estimated 50KVA pole mounted transformer with overhead conductors terminating into a wall mounted self-contained 200amp meter located in the lower-level utility room. The service extends from the meter to a Pull-out type of fusible panel, manufactured by Leonard Electric. The estimated age of this panels is 50 plus years. 7 fusible pullout type switched are located in this main panel which feed panels located throughout the building. The main panel also includes a section of 12-20amp screw in fusible switches for floor branch circuits. A separate 100amp service is in the Pottery tenant space, which is connected to its own utility meter, this panel contains a 100amp main and is 120/240-volt 1 phase, 3 wire.

Power Distribution System Recommendation

The entire building power distribution system is well beyond its useful life and will need to be completely replaced and upgraded from top to bottom, no useful components exist for reuse.

B. Lighting

The existing lighting consists of a combination of 2, and 4 lamp fluorescent lighting fixtures with T-12lamps throughout the building. HID utility pole mounted exterior lighting fixtures are installed on utility poles at the rear lot for parking area lighting. The exterior wall fixtures have been upgraded over to LED. All of the lamps other than the few exterior wall fixtures are inefficient by today's standards. Existing lighting levels are below standards with lighting power densities being high by today's standards and the current lighting power usage would not meet current energy codes. In addition, T-12 lamps, and magnetic ballasts have been phased out and the costs for replacement lamps and ballasts will continue to rise as existing stockpiles are depleted and manufacturing ceases. These fixtures will need to be replaced.

Lighting Recommendation

The interior and exterior lighting systems currently utilize fluorescent technology and no longer comply with the current energy code. Light emitting diode (LED) technology has improved to the point where most of today's light fixtures, both interior and exterior, incorporate this type of technology. Building lighting will need to be replaced with new LED fixtures along with the lighting controls which now require automated shutoff utilizing time clock or occupancy sensors. You will find they save a substantial amount of energy, last much longer than fluorescent type fixtures and have no depreciation in light output over the life of the fixture. It should be mentioned that lighting control components which automatically turn the light fixtures "on and

off" or reduce their output (dimming) in building spaces is a federal government requirement. Thus, if and when the current light fixtures are upgraded to LED, lighting control components must be installed because the building presently does not have any.

C. Exit/Egress Systems
The existing exit/egress lighting system on the interior and exterior areas do not comply with the current code. There are zero current interior emergency lighting fixtures or battery power exit signs within the entire facility, this needed to be addressed under any renovation although this is a liability issue and should be addressed immediately.

D. Fire Alarm System
The existing facility contains only a manual bell system that does not comply, activated by pulling a bar and does not comply. Depending on the building use a new Fire alarm system may be required.

E. Telephone/Data
There is minimal data running thru the building although the current data service enters the main office are on the first floor.

F. Summary & Recommendations
X…

Mechanical Systems & Components:

A. Comfort Cooling/Heating Systems
Comfort Cooling for the facility is not currently provided by a central system and is achieved by small residential type through wall/window air conditioners.

Heating for the facility is currently provided by a centralized steam plant located within the basement of the facility. Two (2) natural gas fed cast iron boilers rated for 500,000 BTUH input each are located adjacent to the former coal fired boilers. These boilers produce steam that is distributed through insulated steel piping throughout the basement to various unit ventilators and steam coils. Condensate from these systems is returned to the boiler room and fed to the boilers. Cast iron boilers carry an ASHRAE median life expectancy of 35 years with the proper water treatment. Currently the condensate as well as the make-up feed water is not being properly treated before being reintroduced to the boilers. The make-up water line also does not carry the proper ASSE 1013 reduced pressure backflow preventer.

It shall be noted at the time of the review that the insulation on the piping appears to be asbestos type. The existing coal fired boilers that were left in the room also are asbestos lined boilers.

B. Ventilation Systems
Ventilation for the facility is currently provided by natural means through operable windows and doors. The original steam fed unit ventilators were provided with an outdoor air louver; however, these louvers appear to have been sealed off some time ago. This is typical for this type of installation due to the outdoor air damper failing in the unit causing leakage and potentially freezing of heating coils.

Ventilation for the gymnasium is provided through exterior louvers that are ducted to horizontal air handling units hung over the stage.

The lower-level kitchen area was not provided with any sort of hood system over the ranges. It was not apparent if these ranges were still being utilized or not.

C. Plumbing Systems – Building Drainage

Building drainage like many of the systems within the building appears to be original to the construction. Sanitary sewer and vent are run in cast iron and extends to the Village's sewer main in Brighton Road.

The lower level kitchen area did not appear to be provided with a grease trap for the sinks as sings were posted indicating "NO GREASE" in sinks.

D. Plumbing Systems – Domestic Water and Natural Gas

Domestic water enters the basement in part of the pottery room and is distributed throughout the facility in copper piping. The majority of this piping appears to be insulated with asbestos. The main water service is not provided with an ASSE 1013 reduced pressure backflow preventer.

Plumbing fixtures appear to be original to a majority of the facility and are not ADA type compliant fixtures. Flush valves and faucets are manual type and water closets are floor mounted.

Domestic Hot Water is produced by a single natural gas fired storage type water heater located in the room adjacent to the steam boilers. This water heater carries an input rating of 70,000 BTUH with 75 Gallons of storage and was constructed in 2006. At 16 years of age this unit has exceeded its recommended life expectancy.

A single thermostatic mixing valve is located adjacent to the water heater to limit hot water temperature to 110 °F to hand washing fixtures.

A natural gas meter is located on the exterior of building where multiple low pressure branches extent underground to the various pieces of equipment. Natural Gas piping is run in black steel.

E. Miscellaneous Systems

Temperature controls for the facility appear to have been handled through a pneumatic system as indicated by the air compressor located within the boiler room; however, it was noted that numerous heaters were provided with stand-alone thermostatic valves.

F. Summary & Recommendations

1. Boiler Chemical Treatment?
2. Boiler Make-Up Feed Tank?
3. Whole building Cooling?

Fire Protection Systems & Components:

The facility is currently not fire suppressed; however, a single hose system was located within the boiler room. At the time of review it was not determined if this was still active.

VILLAGE HALL

Village Hall is a (2) story, approximately 4,500 SF building with a full basement. It is currently occupied by both the Police Department and Village Administration. Originally built in 1918 as a public Village Hall. According to the Village of Bratenahl Historical Society: *The first floor contained the council chamber, clerk's office, justice room, and headquarters for the police department. The jail occupied the rear of the building. The second floor provided living accommodations for the custodian.*

- **Basement: Approx. 1,100SF**
- **Level 1: Approx. 2,000 SF**
- **Level 2: Approx. 1,400 SF**

The existing building is in overall fair condition. The building envelope appears predominantly intact. Overall, the building does not appear to meet basic accessibility standards as required by the Americans with Disabilities Act of 1990 (ADA), and there are some shortcomings and a more in-depth investigation would be required for any area being renovated.

Additionally, the building does not comply with current required egress standards as the one vertical stair is non-compliant.

ZONING ANALYSIS

The property is approximately 10.09 acres located at 411 Bratenahl Road.

Parcel Number:
#631-18-007

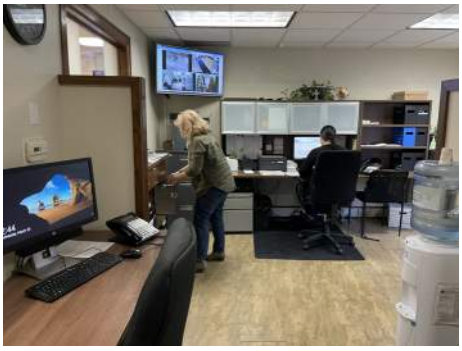
Use District:
The property is classified under R2 – Standard One-family Residence District. The structure best classifies under the zoning code as Municipal Building and this use is permitted in the R2 District.

Parking:
There are no specific parking requirements for Municipal Buildings within a R2 District. However, having 1 parking space for every 250 - 300 Square Feet of building is in line with standard parking requirements for municipal buildings. There are 27parking spaces provided for Village Hall which complies with current code requirements.

EXISTING CONDITIONS (SITE)

Village Hall is situated in the Southwest corner of the parcel. To the West of the site is Bratenahl Road and to the South is interstate I-90. The remainder of the site provides public amenities including:

- Two Tennis Courts
- Gazebo
- Playground
- Playing Field



- Dog Park

CODE COMPLIANCE

Applicable Codes
2017 Ohio Building Code, ICC/ANSI A117.1-2009, 2017 Ohio Plumbing Code, 2017 Ohio Mechanical Code, NFPA 70-17; 2017 Ohio Energy Code, 2017 Ohio Fire Code, 2010 ADA Standards, Department of Rehabilitation & Correction Twelve-Hour Jail

The existing structure is a considered non-separated Use Group B-Business (Administration and Police Station) and I3-Institutional (Temporary Holding Facility) by the Ohio Building Code. The building is approximately 5,800 SF, 2 story with basement constructed of brick with block backup wall system. The first floor is constructed out of wood framing and supported on masonry bearing walls. The construction of the second floor and roof could not be identified from visual observations. However, it is reasonable to assume that they are also constructed of wood framing. No fire proofing was visible on any structural elements observed. The building construction most closely coincides with Type IIIB, unprotected, construction. Fire suppression was not observed in the building.

General building heights and areas are within the allowable and the structure should be classified as Separated Mixed-occupancy, multistory building.

Fire Resistance Ratings & Separation
(1) Hour separation is required between I3 and B occupancies and should be considered if renovations or additions occur.

Fire Protection System
An automatic sprinkler systems would be required throughout the building if renovations or additions occur and the building is still determined to be Use Group Classification I3 .

Means of Egress

Approximate Occupant Loads for the building are as follows:

Basement	4
Level 1	20
Level 2	14
Total Occupants:	38

Minimum Number of Exits Required

Basement	1
Level 1	1
Level 2	1

The existing stair is non-code compliant as it does not meet the minimum required width for an egress stair. Thus, both the basement and Level 2 are not provided with adequate emergency egress at this time.

OBC Chapter 29 - Plumbing Systems

Table 2902.1 - Minimum Number of Required Plumbing Fixtures

Fixture Type	Required
Water Closet	2 Male | 2 Female | 1 l3
Lavatories	2 Male | 2 Female | 1 l3
Drinking Fountain	1 | 1 13

ENERGY CODE

The existing building predates the Ohio Energy Code, any new alterations, repairs or building systems upgrades will be required to comply with current energy code requirements. Visual observations suggest detailing for wall system assembly shows no indication of attention to potential thermal bridging or air and vapor movement. Windows and door systems in the exterior envelope are old and worn. Signs of air infiltration is evident. Change of use of a space resulting in an increase in fossil fuel consumption or electrical consumption requires that space be brought up to current code.

ACCESSIBILITY

All Buildings are required to be compliant with Ohio Building Code Section 3411, Accessibility for Existing Buildings. All municipalities are required to have accessible code compliant buildings and amenities. If buildings are determined to not be code compliant a public entity must perform a self-evaluation and develop a transition plan if structural changes are necessary for achieving program accessibility.

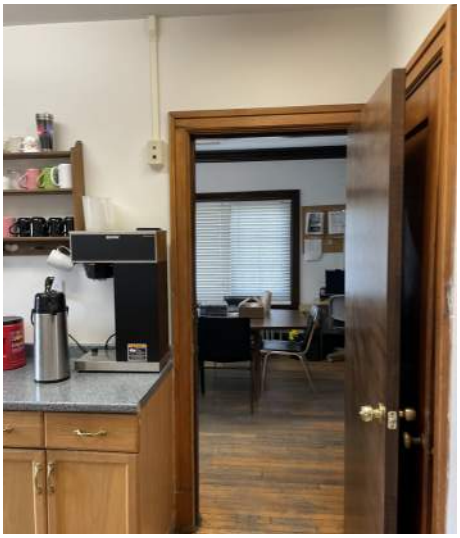
An exhaustive review was not completed for accessibility, the following observations were noted.

An adequate number of accessible parking spots are located along the North Side of th building. A single concrete ramp provides access to the first floor along the West Side of the building. Compliance for slope needs confirmed but appears to be within code. Most of all other entrances from the public way require the traversing of stairs up from grade level to first floor level.

Internal circulation for the building includes multiple level changes, all traversed via non-accessible stairs.

Internal elements of accessibility requiring attention include but are not limited to the following:

1. Several Door handles are non-compliant knob type and should be switched to a type not requiring tight grasping, pinching, or twisting of the wrist.
2. The internal stair located on the South Side of the building does not meet standards. The width is not adequate and handrails at internal stairs do not provide the proper extensions at top and bottom of stairs



3. No ADA drinking fountains were observed.
4. Most of the building's restrooms do not appear to meet ADA requirements for clearances, turning radius requirements and grab bars.
5. Compliant signage is also required.
6. Push and pull clearances for doors and reach ranges should also be addressed.

12 HOUR HOLDING FACILITY

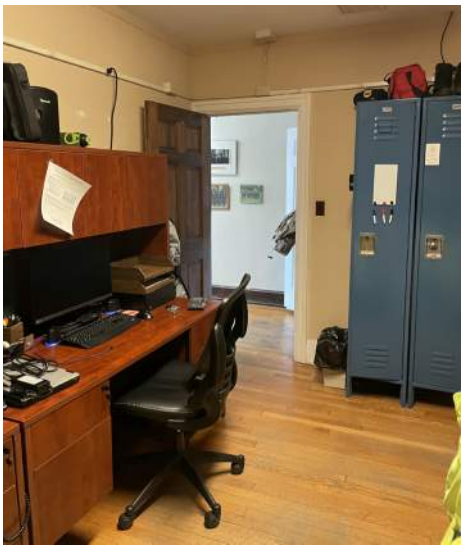
The facility is non-compliant with the Department of Rehabilitation & Correction Construction/Renovation Criteria for Twelve-Hour Jails (Effective April 1, 2016). The facility would be subject to corrective requirements ifor any renovations or modifications.

ESSENTIAL FACILITY & STORM SHELTER

Any major modifications would require enactment of the Ohio Building Code requirements for essential facilities and storm shelters. Due to the fact that the building houses a police station it is considered an essential facility and most be constructed in accordance with Category IV building requirements. A police station is also required to have a ICC-500 provisions for shelters that provide near absolute protection from high intensity wind events.

These requirements allow for the police department to continue to respond and serve the public during and after a major storm event.

VILLAGE HALL SUMMARY



The 10.09 Acre site has been the location of the Village Hall and Police Station since it's completion in 1918. The park with several public amenities are a community asset. The location provides access to the community remainder of the community and is strategically located near the densest population area of the Village.

The building has lived passed it's useful life. While maintained well it is not code compliant, presents current safety concerns, and would be costly to renovate and difficult to create an addition. For these reasons a full MEP and Structural analysis was not completed.

PROGRAM ANALYSIS

PROGRAM INTRODUCTION

The intent of the this study is to analyze the programming needs of the Police Department, Village Administration and Recreation Department.

For the purpose of this study key stake holders were identified as indicated in the Project Introduction under project team and multiple meetings were conducted with each department to identify the following: user needs, recognize all spaces desired / associated size requirements of those spaces, and understand spatial adjacencies / flow. (See Appendix A for meeting minutes from all user meetings)

The following Program Analysis documents include existing conditions analysis along with the development of desired future program for each department.

Program Areas	EXISTING Total Area (sq. ft.)	PROGRAM Total Area (sq. ft.)	COMMENTS
Villlage Administration	2,985	8,158	
Police	2,347	11,463	
Recreation	27,700	20,599	

DEPARTMENT NARRATIVES

This analysis is a summary of numerous interviews with the police department, the administration and recreational departments.

Police Department:
The Police Department is woefully undersized. They are currently operating with 20% of the required space for ideal functionality. There are several operational needs that the department lacks due to physical limitations and constraints. As an example the break room, interview room, interrogation room, squad room, roll call room, training room, meeting room and charging area for electronics all occur in one shared space.

Additionally, physical space is unavailable for numerous required functions of a police department including:

- Secure Entry
- Public Lobby
- Public Restrooms
- Safe Room
- Shower Area
- Wellness Area
- Sally Port
- Narcotics Storage
- Armory Workroom

- Training Area
- Fitness Room

Police Department Concerns: The current facility is not properly designed for the needs of the police department. It creates an unsafe working environment for day to day police operations. As an example there is no detainee sally port or entrance for booking procedures. Detainees are currently processed through a back door, which requires unlocking of a keypad and traversing of stairs. There is no secure perimeter once within the building as the space is shared with Village Administration and has direct access into Clerk of Courts space. Processing occurs within the temporary holding cell and space making holding of multiple detainees impractical. State regulations require female/male or adults/juveniles detainees to be separated by sight and sound and the facility is not compliant with these requirements. Evidence storage occurs in an unventilated basement space creating health concerns for the department. The building does not have sufficient female officer amenities as required by state ordinances.

Village Administration

Current space allocation for the Village Administration is less than 40% of what is desired. The largest need is for additional independent and secure offices. Currently there is no space allocated for Assistant Fiscal Office, Mayor's Assistant Office, Law/Flex Office Prosecutor/Flex Office. The Administration also lacks several shared amenities such as a Conference Room, Small Meeting Room, and Copy Workroom.

Building Department Concerns: The current office is at capacity and there is no space for laying out and reviewing permitting drawings. The size constraints of the space make it impractical to meet with multiple individuals to review documents. Current drawing storage occurs at the Community Center making it inefficient when documents are needed for reference or record requests.

Court Administration, Fiscal and Mayor Concerns: *The current building layout creates safety concerns as police detainees could potentially access the administrative spaces. During a booking procedure the clerks become forced to stay in their office space. The physical layout and configuration of the clerks space creates concerns of inadvertently sharing of sensitive information.*

Currently the court room, fiscal office and mayor's office are located within in one open area. This layout creates a less than ideal situation. Privacy between the different users is non existent. Court must take place in the evenings as to not disrupt the day to day activities of the fiscal officer and mayor. The Court Room is the only meeting space in the building and is shared by all, causing daily disruptions to the Fiscal and Mayor's offices. Additionally, the lobby does not provide enough waiting space. There is also a lack of private office space for attorneys to have private meetings and review documents ahead of court cases. Parking during court is not ideal as

participants are required to park on the surrounding public streets and walk to the building. It should also be noted that employee parking is labeled and not secure. This poses a risk, as disgruntled individuals are able to identity staff vehicles, creating an unsafe environment. Lastly, there is limited file storage within the office space. Additional storage occurs in the basement and the Community Center. This is inefficient and is concerning as the storage space at the Community Center has poor air quality and water issues and may cause degradation to the records. Ideally records need to be accessed quickly and should be within immediate vicinity of the office.

Recreation Department

The Recreation Department's current footprint is too large for the programing that is offered. This is caused by the size of the existing community center building which is over 30,000SF. While the department is requesting 20,599SF. Additional space reductions should be studied by combining similar programs into shared spaces that are scheduled.

- Pottery & Art Room
- Gymnasium & Multipurpose Room
- Children's Room and Classroom

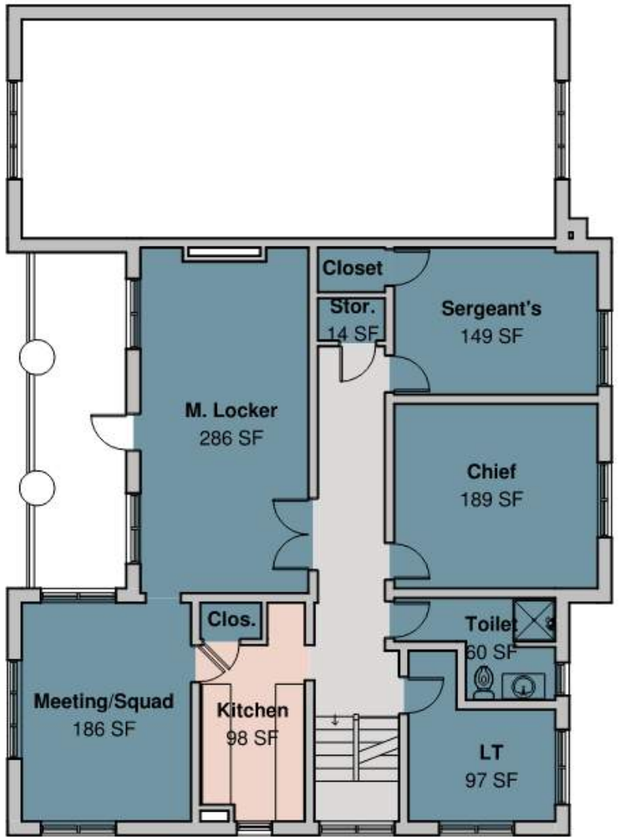
Recreation Department Concerns: The current facility does not have an elevator and thus limited access to the entire building per ADA is limited. There is not enough outlets as their is only one per room in original portions of building. Parking is a concern as visitors park in the rear lot and along Brighton Rd.

EXISTING CONDITIONS AND PROGRAM
VILLAGE HALL

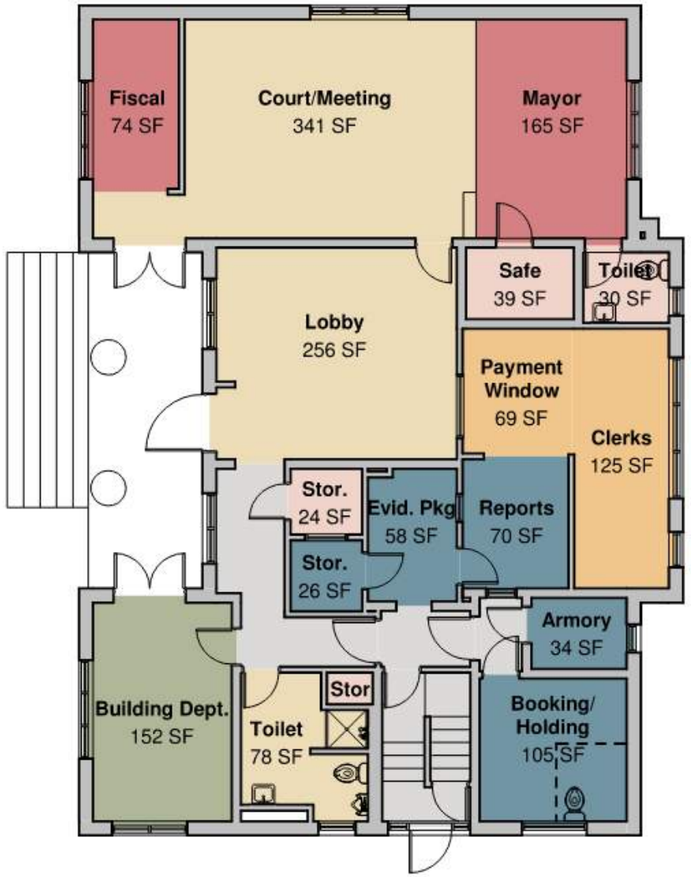
Program Areas	EXISTING Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Police Department				
Secure Entry				
Public Lobby				
Public Restrooms				
Safe Room				
Interview Room				
Staff Entry				
Chief's Office	150	1	150	
Chief's Restroom				
Lieutenant's Office	100	1	100	
Sergeant's Office	150	1	150	
Squad Room	220	1	220	
Charging Station				
Copy Workroom				
Staff Breakroom	90	1	90	
Locker Room	varied	2	365	
Shower Room				
Wellness Room				
Staff Restrooms	varied	2	107	
IT Room				
Secure Storage	15	1	15	
General Storage	290	1	290	
File Storage	300	1	300	
Sally Port				
K9 Storage				
Booking	30	1	30	
Holding Cells	30	1	30	
Interrogation Room				
Conference Room				
Training / Tactical Training				
Fitness Room				
Shooting Range				
Control Room				
Cruiser Parking				
Total Program Net Area:			**2,347**	

Program Areas	EXISTING Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Village Administration				
Fiscal/Village Clerk Office	75	1	75	
Ass't Fiscal Office				
Mayor's Office	165	1	165	
Mayor's Ass't Office				
Law / Flex Office				
Total Program Net Area:			**240**	
Courts				
Clerk of Courts Office	65	1	65	
Deputy Clerk of Courts Office	60	1	60	
Prosecutor / Flex Office				
Payment Window	60	1	60	
Total Program Net Area:			**185**	
Building Department				
Building Office	150	1	150	
Plans Room	500	1	500	
Total Program Net Area:			**650**	

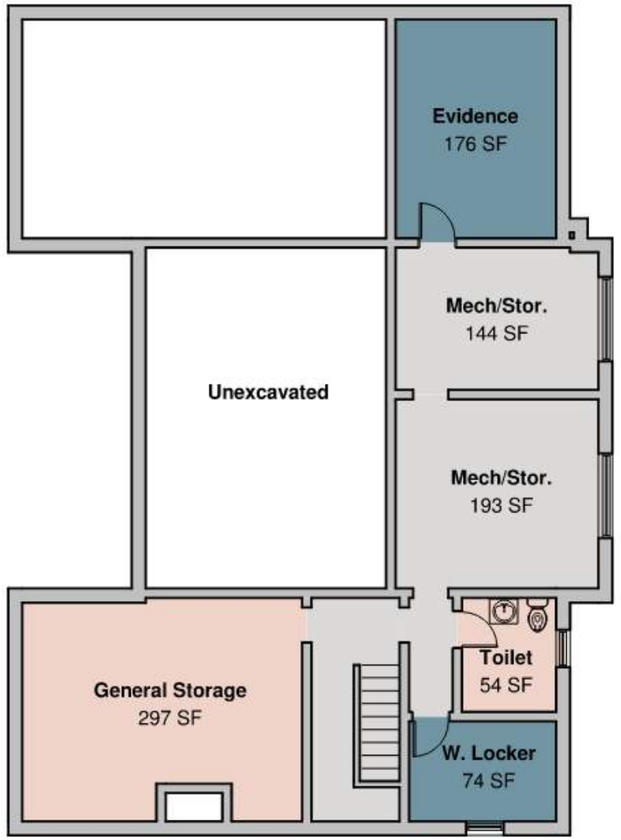
Program Areas	EXISTING Area (sq. ft.)	No. Of Room	Total Area	COMMENTS
Shared Public Spaces				
Public Entry				
Public Lobby / Waiting	255	1	255	
Public Restrooms	85	1	85	
Conference Room				
Small Meeting				
Large Meeting Room	420	1	420	Court room
Townhall Meeting Space				
Total Program Net Area:			**760**	
Shared Admin				
Staff Entry				
Secure Storage	35	1	35	
Records/File Room	1,000	1	1,000	Shared Police/Admin/Bldg.
Copy Workroom				
Breakroom	90	1	90	Shared Police/Admin/Bldg.
Staff Restrooms	25	1	25	
General Storage				
Wellness/Lactation Room				
Fitness Room				
IT Room				
Custodial				
Total Program Net Area:			**1,150**	
Admin Subtotal			**2,985**	



3 Village Hall - Second Floor Existing



2 Village Hall - First Floor Existing

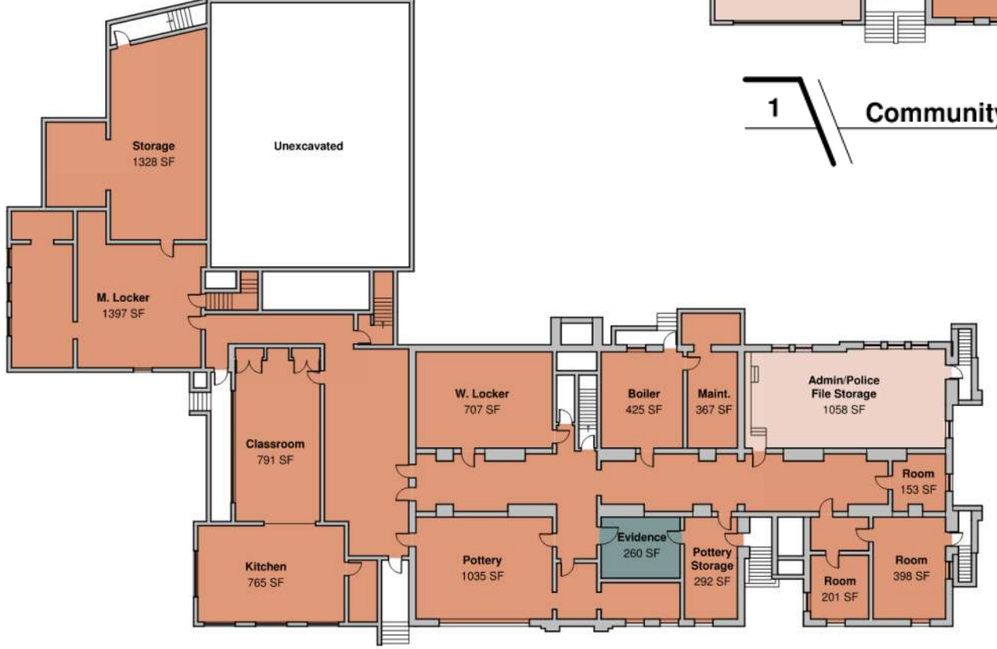


1 Village Hall - Basement Existing

EXISTING CONDITIONS AND PROGRAM
COMMUNITY CENTER

Program Areas	EXISTING Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Public Entry				
Public Restroom	varied			
Refreshment Station				
Office	220	1	220	
Gymnasium	2,900	1	2,900	
Gym Storage	250	1	250	
Stage	850	1	850	
Exercise Room	700	1	700	
Weight Room	780	1	780	
Conference Room	700	1	700	McKoen Meeting Room
Multipurpose Room	900	1	900	Seldon Room
Living Room/Library	740	1	740	
Art Room	740	1	740	
Children's Room				Combined with Art Room
Catering/Demo Kitchen	700	1	700	
Classroom	680	1	680	
Storage	Varied	3	1,600	
Custodial				
Workroom	420	1	420	
Pottery	720	1	720	
Pottery Storage	varied	3	460	
Historical Society	880	1	880	
Council Meeting Room	650	1	650	
Small Meeting	240	1	240	
Locker Rooms	varied	2	1,570	
Serving Kitchen	315	1	315	
Gardening Club	500	1	500	
Rec Room	730	1	730	
Community Garden	1,728	1	1,728	
Outdoor Patio				
Splash Pad				
Total Program Net Area:			**18,245**	
Mechanical			425	
Circulation & Overhead			11,030	
Total Recreation Building Total:			**29,700**	

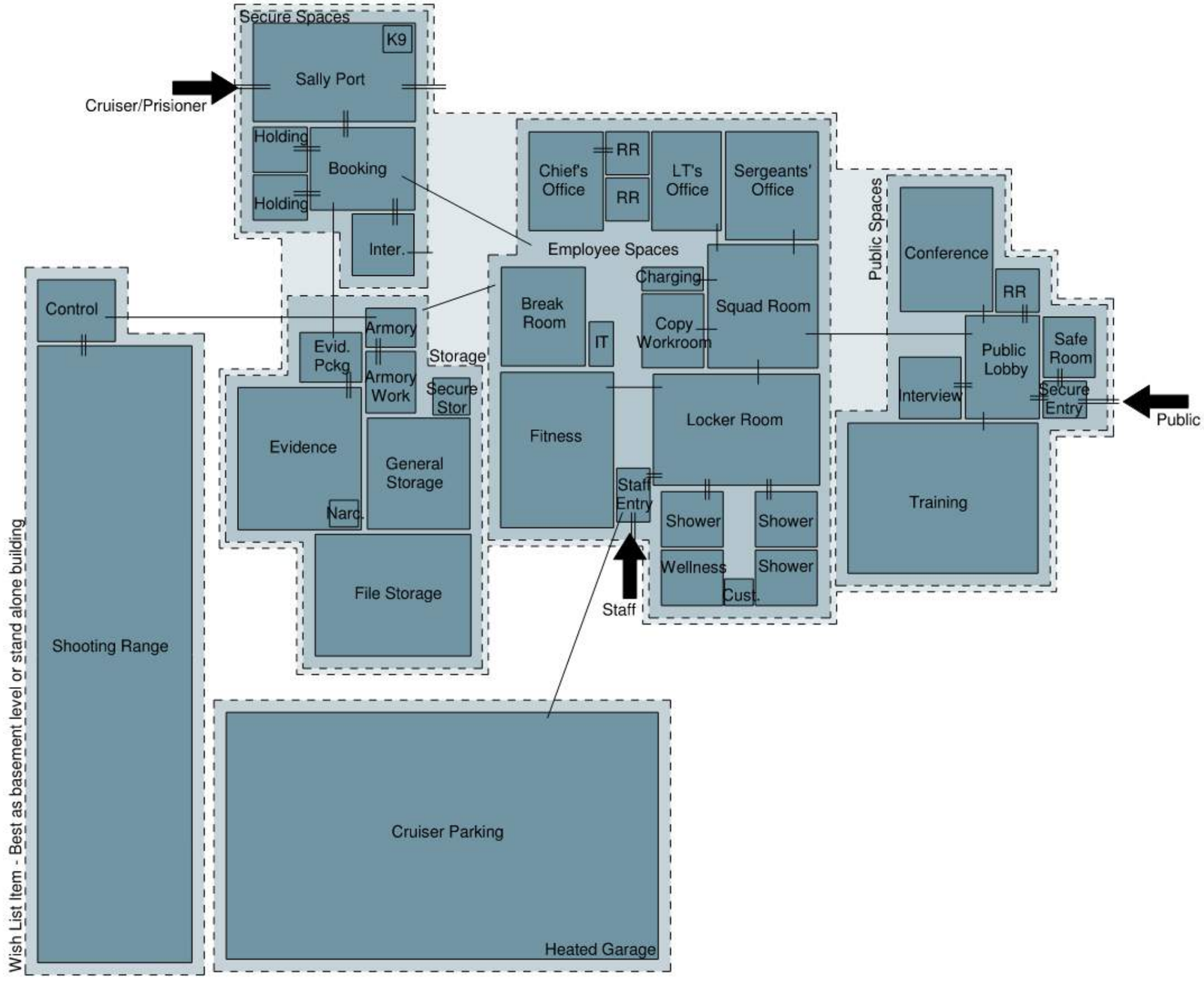
1 Community Center - First Floor Existing



2 Community Center - Basement Existing

PROPOSED PROGRAM
POLICE DEPARTMENT

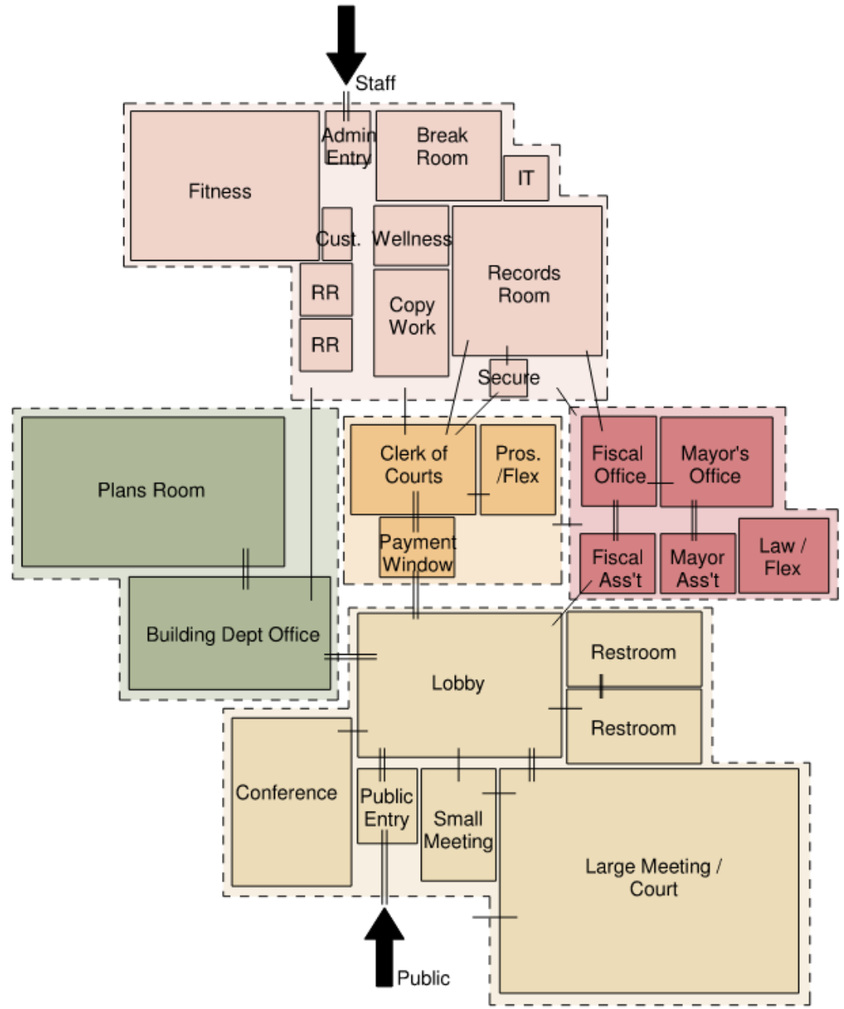
Program Areas	PROGRAM Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Secure Entry	50	1	50	
Public Lobby	200	1	200	
Public Restrooms	50	1	50	
Safe Room	80	1	80	
Interview Room	100	1	100	
Staff Entry	50	1	50	
Chief's Office	200	1	200	
Chief's Restroom	50	1	50	
Lieutenant's Office	180	1	180	
Sergeant's Office	260	1	260	
Squad Room	360	1	360	
Charging Station	25	1	25	
Copy Workroom	120	1	120	
Staff Breakroom	200	1	200	
Locker Room	350	1	350	25 lockers
Shower Room	90	3	270	
Wellness Room	100	1	100	
Staff Restrooms	50	1	50	
IT Room	20	1	20	
Secure Storage	35	1	35	
General Storage	300	1	300	
File Storage	400	1	400	
Sally Port	400	1	400	
K9 Storage	20	1	20	
Booking	220	1	220	
Holding Cells	60	2	120	
Interrogation Room	100	1	100	
Evidence Packaging	80	1	80	
Evidence Storage/Processing	460	1	460	
Narcotics Storage	20	1	20	
Armory	50	1	50	
Armory Workroom	80	1	80	
Conference Room	300	1	300	10 person
Training / Tactical Training	750	1	750	30 person, flexible space
Fitness Room	500	1	500	
Shooting Range	2,500	1	2,500	
Control Room	120	1	120	
Cruiser Parking	2,800	1	2,800	7 cars (Not in Total)
Total Program Net Area:			**9,170**	
Mechanical	5%		459	
Circulation & Overhead	25%		2,293	
Total Police Building Area:			**11,921**	



PROPOSED PROGRAM
VILLAGE ADMINISTRATION

Program Areas	PROGRAM Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Village Administration				
Fiscal/Village Clerk Office	120	1	120	
Ass't Fiscal Office	80	1	80	
Mayor's Office	180	1	180	
Mayor's Ass't Office	80	1	80	
Law / Flex Office	120	1	120	
Total Program Net Area:			**580**	
Courts				
Clerk of Courts Office	200	1	200	
Deputy Clerk of Courts Office				Shared office with Clerk
Prosecutor / Flex Office	120	1	120	
Payment Window	80	1	80	
Total Program Net Area:			**400**	
Building Department				
Building Office	400	1	400	
Plans Room	700	1	700	
Total Program Net Area:			**1,100**	

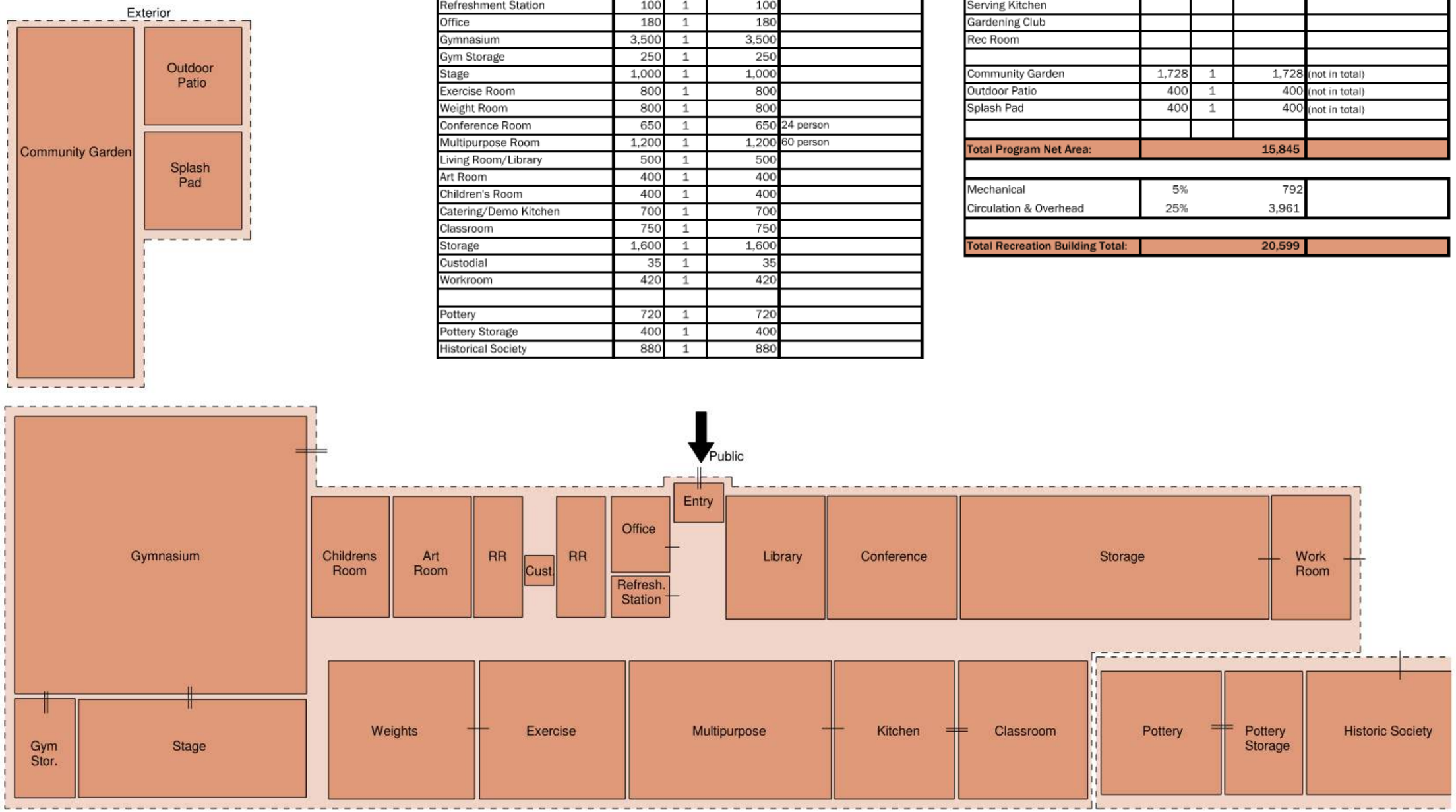
Program Areas	PROGRAM Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Shared Public Spaces				
Public Entry	80	1	80	
Public Lobby / Waiting	400	1	400	
Public Restrooms	180	2	360	
Conference Room	360	1	360	12-50 person
Small Meeting	150	1	150	
Large Meeting Room	1,200	1	1,200	Court/Council Chambers
Townhall Meeting Space				Use Rec gymnasium
Total Program Net Area:			**2,550**	
Shared Admin				
Staff Entry	50	1	50	
Secure Storage	35	1	35	
Records/File Room	400	1	400	
Copy Workroom	120	1	120	
Breakroom	200	1	200	
Staff Restrooms	50	2	100	
General Storage	80	1	80	
Wellness/Lactation Room	100	1	100	
Fitness Room	500	1	500	
IT Room	35	1	35	
Custodial	25	1	25	
Total Program Net Area:			**1,645**	
Admin Subtotal			**6,275**	
Mechanical	5%		314	
Circulation & Overhead	25%		1,569	
Total Admin Building Area:			**8,158**	



PROPOSED PROGRAM
RECREATION DEPARTMENT

Program Areas	PROGRAM Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Recreation				
Public Entry	80	1	80	
Public Restroom	240	2	480	
Refreshment Station	100	1	100	
Office	180	1	180	
Gymnasium	3,500	1	3,500	
Gym Storage	250	1	250	
Stage	1,000	1	1,000	
Exercise Room	800	1	800	
Weight Room	800	1	800	
Conference Room	650	1	650	24 person
Multipurpose Room	1,200	1	1,200	60 person
Living Room/Library	500	1	500	
Art Room	400	1	400	
Children's Room	400	1	400	
Catering/Demo Kitchen	700	1	700	
Classroom	750	1	750	
Storage	1,600	1	1,600	
Custodial	35	1	35	
Workroom	420	1	420	
Pottery	720	1	720	
Pottery Storage	400	1	400	
Historical Society	880	1	880	

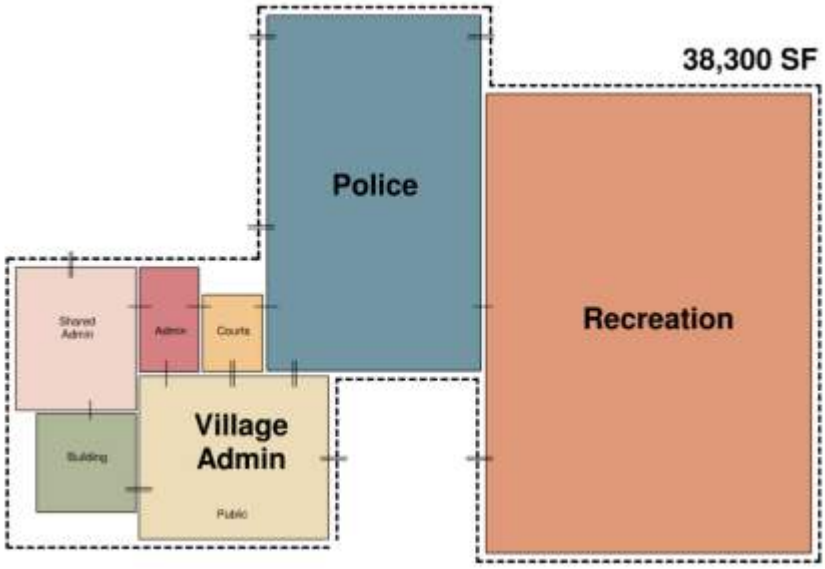
Program Areas	PROGRAM Area (sq. ft.)	No. Of Room	Total Area (sq. ft.)	COMMENTS
Council Meeting Room				
Small Meeting				
Locker Rooms				
Serving Kitchen				
Gardening Club				
Rec Room				
Community Garden	1,728	1	1,728	(not in total)
Outdoor Patio	400	1	400	(not in total)
Splash Pad	400	1	400	(not in total)
Total Program Net Area:			**15,845**	
Mechanical	5%		792	
Circulation & Overhead	25%		3,961	
Total Recreation Building Total:			**20,599**	



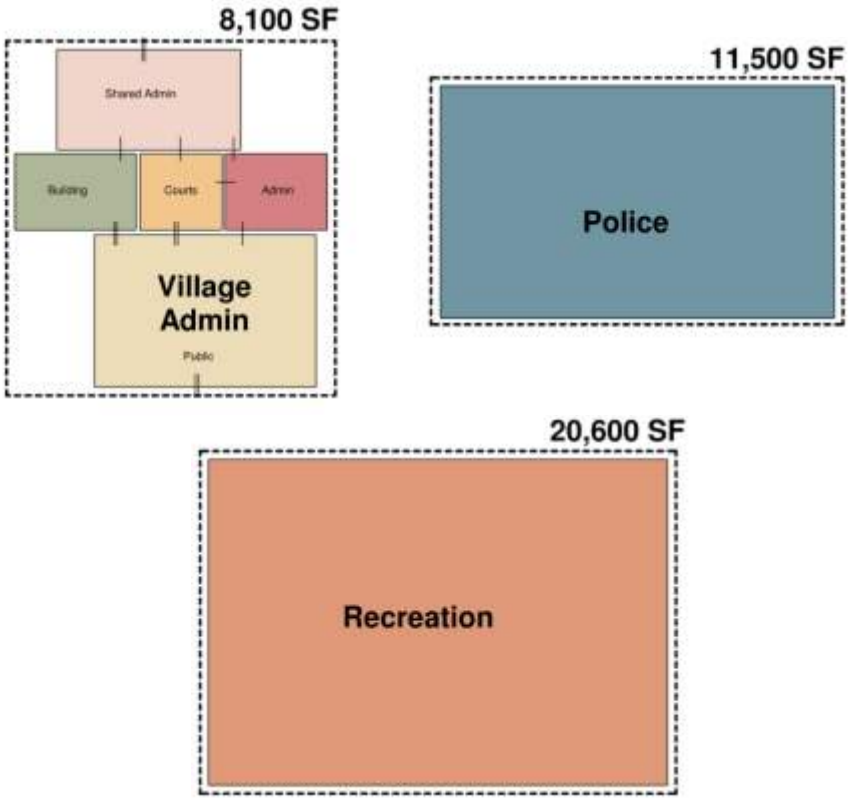
CONCEPT EXPLORATION

CONFIGURATION OPTIONS

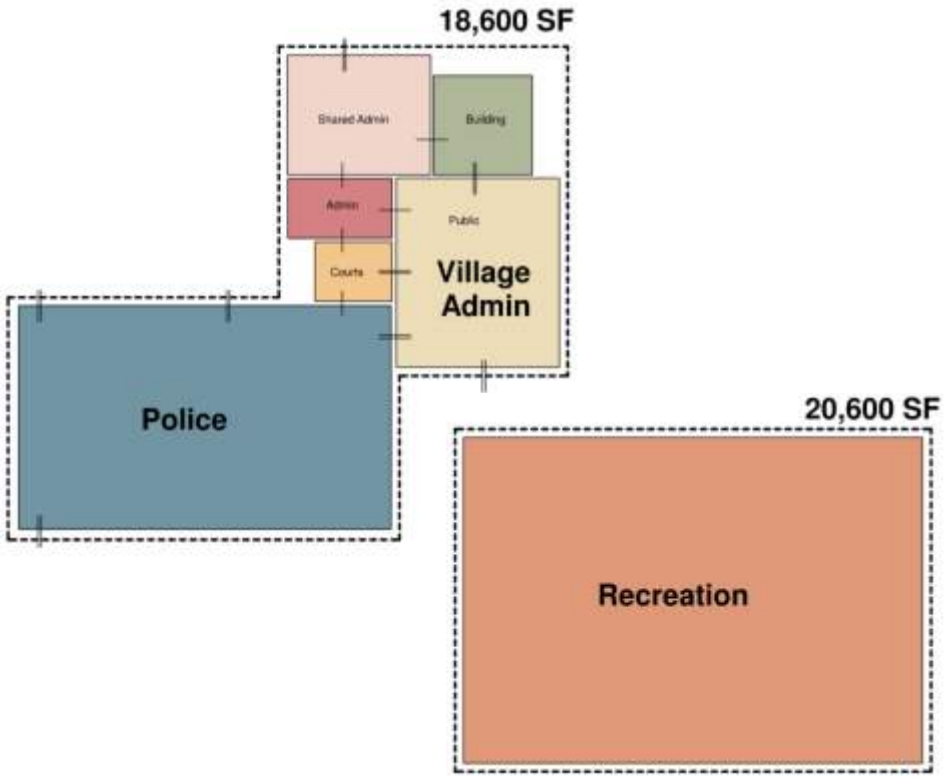
The development of the program allows for the study of potential solutions. In an effort to organize the outcomes from this exploration three potential configurations of the departments and their interactions were analyzed.



Campus Center



Separate Facilities



Hybrid Approach

SITE OPTIONS

The development of configurations allows for the study of potential solutions on different site layouts. Three sites were studied as part of this analysis.

COMMUNITY CENTER SITE
10300 Brighton Road

BRATENAHL CENTER SITE
11404 Lake Shore Boulevard

CONFIGURATION & SITE ANALYSIS

Examining the potential configurations combined with the different site options allows for a holistic approach of determining the most advantageous solution(s). Additionally, each option considered building placement on the site and if the existing facilities should remain, be razed, fully renovated, or have additions and alterations.

In total there were twenty different configuration and site combinations studied. In order to understand the benefits and negatives of each a scoring matrix was developed. Fourteen criteria and attributes were developed to analytically compare the options to one another.

- Ease of Community Access: What is the ability of the community to visit location with convenience?

- Economic Development Opportunities: Does the site allow for significant economic development opportunities?

- Urban Context: Will function and size of the building blend in with surrounding buildings and community?

- Police Access: Is there proximity of site to main transportation routes throughout the Village?

- Bratenahl Civic Campus: Does the site utilize concepts of sharing Village resources and enhance operational efficiency.

- Community Perception/ Enhancement: Will the result in an enhanced community attribute when compared to the current use of the site?

- Require a Temporary Facility: Does the development of the site require developing a remote location on a temporary basis?

- Site Layout and Topography: Is the site difficult to develop because of an odd shape or vast change in topography elevations?

- Storm Water: Does development of the site cause concerns of taxing existing storm water infrastructure?

- Cost (Initial): Does the development present an immediate substantial cost?

- Life Expectancy of a Facility: In comparison to a new building with a 50yr life expectancy what is the longevity of the proposed solution?

- Operation and Maintenance Cost: What is the cost magnitude to operate and maintain the building and site?

- Program Functionality: How will the functionality of the building and site be allow for efficiencies of shared space.

- Code Compliance: What affect does code compliance have on construction cost?

CONCEPT MATRIX

	Concept	Description	Ease of Community Access	Economic Development Opportunities	Urban Context	Police Access	Bratenahl Civic Campus	Community Perception/ Enhancement	Require a Temporary Facility	Site Layout and Topography	Storm Water ?	Cost: Initial	Life Expectancy of a Facility	Operation and Maintenance Cost ?	Program Functionality	Code Compliance		Total
	Concept 1A	All services located at Bratenahl Center. All new construction.	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)	Positive (+1)	Positive (+1)	Positive (+1)	Positive (+1)		Negative (-1)	Positive (+1)		Positive (+1)	Positive (+1)		8
	Concept 1A.1	All services located at Bratenahl Center. Renovate existing + Addition	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)	Positive (+1)	Neutral (0)	Positive (+1)	Positive (+1)		Negative (-1)	Negative (-1)		Positive (+1)	Neutral (0)		4
	Concept 1A.2	All services located at Bratenahl Center. Renovate existing + Small Addition	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)	Positive (+1)	Neutral (0)	Positive (+1)	Positive (+1)		Positive (+1)	Negative (-1)		Positive (+1)	Neutral (0)		6
	Concept 1B	All services located at Village Hall. All new construction.	Positive (+1)	Positive (+1)	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)	Positive (+1)	Neutral (0)		Negative (-1)	Positive (+1)		Positive (+1)	Positive (+1)		7
	Concept 1B.1	All services located at Village Hall. All new construction, 2 buildings	Positive (+1)	Positive (+1)	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)	Negative (-1)	Neutral (0)		Negative (-1)	Positive (+1)		Positive (+1)	Positive (+1)		5
	Concept 1 C	All services located at Community Center. All new construction.	Negative (-1)	Negative (-1)	Negative (-1)	Negative (-1)	Positive (+1)	Neutral (0)	Negative (-1)	Negative (-1)		Negative (-1)	Positive (+1)		Positive (+1)	Positive (+1)		-3
	Concept 1 C.1	All services located at Community Center. Renovate existing + Addition	Negative (-1)	Negative (-1)	Negative (-1)	Negative (-1)	Positive (+1)	Negative (-1)	Negative (-1)	Negative (-1)		Negative (-1)	Negative (-1)		Positive (+1)	Negative (-1)		-8
	Concept 2A	Rec at Community Center, Police at Village Hall and Admin at Bratenahl Center	Negative (-1)	Negative (-1)	Positive (+1)	Neutral (0)	Negative (-1)	Negative (-1)	Negative (-1)	Neutral (0)		Neutral (0)	Negative (-1)		Negative (-1)	Negative (-1)		-7
	Concept 2B	Rec at Community Center, Police at Bratenahl Center and Admin at Village Hall	Negative (-1)	Negative (-1)	Neutral (0)	Postive (+1)	Negative (-1)	Negative (-1)	Negative (-1)	Neutral (0)		Neutral (0)	Negative (-1)		Negative (-1)	Negative (-1)		-7
	Concept 3A	Rec at Community Center, Police/Admin at Bratenahl Center - Addition	Positive (+1)	Negative (-1)	Neutral (0)	Positive (+1)	Neutral (0)	Neutral (0)	Negative (-1)	Positive (+1)		Positive (+1)	Negative (-1)		Positive (+1)	Negative (-1)		1
	Concept 3A.1	Rec at Community Center, Police/Admin at Bratenahl Center - New Construction	Positive (+1)	Negative (-1)	Neutral (0)	Positive (+1)	Neutral (0)	Positive (+1)	Negative (-1)	Positive (+1)		Positive (+1)	Neutral (0)		Positive (+1)	Neutral (0)		4
	Concept 3B	Rec at Village Park, Police/Admin at Bratenahl Center - Addition	Positive (+1)	Neutral (0)	Positive (+1)	Positive (+1)	Neutral (0)	Neutral (0)	Positive (+1)	Positive (+1)		Neutral (0)	Neutral (0)		Positive (+1)	Neutral (0)		6
	Concept 3B.1	Rec at Village Park, Police/Admin at Bratenahl Center - New Construction	Positive (+1)	Neutral (0)	Positive (+1)	Positive (+1)	Neutral (0)	Positive (+1)	Positive (+1)	Positive (+1)		Negative (-1)	Positive (+1)		Positive (+1)	Positive (+1)		8
	Concept 3C	Rec at Bratenahl Center, Police/Admin at Village Hall	Neutral (0)	Neutral (0)	Negative (-1)	Neutral (0)	Neutral (0)	Neutral (0)	Negative (-1)	Neutral (0)		Negative (-1)	Neutral (0)		Positive (+1)	Neutral (0)		-2
	Concept 3D	Rec at Community Center, Police/Admin at Village Hall - New Construction	Neutral (0)	Neutral (0)	Neutral (0)	Neutral (0)	Neutral (0)	Positive (+1)	Neutral (0)	Neutral (0)		Positive (+1)	Neutral (0)		Positive (+1)	Neutral (0)		3

Concept 1A - Campus Center (1 Site)

All services located at Bratenahl Center - New Construction

Concept 1A.1 - Campus Center (1 Site)

All services located at Bratenahl Center - Renovation + Addition

Concept 1B - Campus Center (1 Site)

All services located at Village Hall Site - New Construction

Concept 1B.1 - Campus Center (1 Site)

All services located at Village Hall Site - New Construction, 2 Buildings

Concept 2A - Separate Facilities (3 Sites)

Rec to remain at Community Center

Police at Village Hall - New Construction

Village Admin at Bratenahl Center - Renovation

Concept 1C - Campus Center (1 Site)

All services located at Community Center - New Construction

Concept 2B - Separate Facilities (3 Sites)

Rec to remain at Community Center

Village Admin at Village Hall - Renovation + Addition

Police at Bratenahl Center - New Construction

Concept 1C.1 - Campus Center (1 Site)

All services located at Community Center - Renovation + Addition

Concept 3A - Hybrid (2 Sites)

Rec to remain at Community Center

Village Admin and Police at Bratenahl Center - Renovation + Addition

Concept 3B - Hybrid (2 Sites)

Rec at Village Hall Site - New Construction

Village Admin and Police at Bratenahl Center - Renovation + Addition

Concept 3A.1 - Hybrid (2 Sites)

Rec to remain at Community Center

Village Admin and Police at Bratenahl Center - New Construction

Concept 3B.1 - Hybrid (2 Sites)

Rec at Village Hall Site - New Construction

Village Admin and Police at Bratenahl Center - Renovation + Addition

Concept 3D - Hybrid (2 Sites)

Rec to remain at Community Center

Village Admin and Police at Village Hall Site - New Construction

Concept 3C - Hybrid (2 Sites)

Village Admin and Police at Village Hall Site - New Construction

Rec at Bratenahl Center - Renovation + Addition

CONFIGURATION & SITE ANALYSIS MATRIX

The numerous site options were analyzed for their positives, negatives and relative cost. This allows for a holistic view of each site when in comparison to one and another.

	Concept	Description	Pros	Cons	Cost
Campus Center		Campus Center Concepts	• Infrastructure efficiencies; shared utilities/systems, operational cost, shared parking • Operational synergies; collaboration / connection between departments • Programmatic efficiencies; shared spaces such as training rooms, conference rooms, public lobby, etc. • One stop shop; all Village functions easily accessible in one location	• Expensive to build • Potential conflicts will all users on one site; traffic flow	
	Concept 1A	All services located at Bratenahl Center. All new construction.	• Most centrally located site, easily accessible from highway • Leaves the current Community Center available for Residential development • Police can respond to community easily without disrupting Residential areas • Great location against the nature preserve; access to existing outdoor space • Site connection to Eddy Rd gives potential for better site circulation to avoid conflict with public, staff and police traffic flow	• Most expensive Option • Potential conflicts will all users on one site. • Removes Police presence from Village Hall Site. • Potential issues with site water management.	$$$$
	Concept 1A.1	All services located at Bratenahl Center. Renovate existing + Addition	• Same Pros as Concept 1A • Less expensive thean Concept 1A	• Same Cons as Concept 1A • Have to tie into existing architecture	$$$$
	Concept 1B	All services located at Village Hall. All new construction.	• Leaves the current Community Center available for Residential development • Leaves the Bratenahl Center for development • Maintains Police presence at Village Park • Consolidates Rec indoor/outdoor activities • Leaves Village Hall to be repurposed.	• One site entry/exit point could pose a challenge with site circulation • Loss of existing green space • Limited parking, loss of more green space will be required to accommodate parking	$$$$
	Concept 1B.1	All services located at Village Hall. All new construction, 2 buildings	• Same Pros as Concept 1B • Maintains one stop shop campus feel but provides separation of uses	• Same Cons as Concept 1B • Less operational efficiencies with two buildings	$$$$$
	Concept 1 C	All services located at Community Center. All new construction.		• Located in Residential neighborhood • Poor site access; dead end street and one way street • Police presence could cause disruption to local neighbors • Site constraints limit parking and building footprint • Building would have to be multistory	$$$$
	Concept 1 C.1	All services located at Community Center. Renovate existing + Addition		• Same Cons as Concept 1C • Existing building would require extensive abatement	$$$
Separate Facilities		Separate Facility Concepts		• Expensive to Operate • No infrastructure efficiencies with three sites • No potential for operational synergies; collaborations / connection between departments • Separating Police from Admin creates operational inefficiencies • Does not allow for Residential and /or Commercial development	
	Concept 2A	Rec at Community Center, Police at Village Hall and Admin at Bratenahl Center	• Maintains Police presence at Village Park • Locates services where they are needed in the community • Repuroses existing facilities saving on construction costs		$$-$$$$
	Concept 2B	Rec at Community Center, Police at Bratenahl Center and Admin at Village Hall	• Police can respond to community easily without disrupting Residential area		$$$-$$$$$
Mixed		Mixed Concepts	• Operational synergies; collaboration / connection between Police/Admin • Programmatic efficiencies; shared spaces between Police/Admin • Reduces conflicts with traffic flow by separating Rec services and Police/Admin. • Resources can be located where they're needed in the community; possibly more accessible	• Potentially expensive to build • Less infrastructure efficiencies with two sites • Does not accomplish one stop shop	
	Concept 3A	Rec at Community Center, Police/Admin at Bratenahl Center	• More cost effective option • Most centrally located site, easily accessible from highway for Police/Admin • Police can respond to community easily without disrupting Residential area • Great location against the nature preserve; access to existing outdoor space for Police/Admin • Site connection to Eddy Rd gives potential for better site circulation for Police • Rec can continue to operate without sacrificing square footage		$$-$$$
	Concept 3A.1	Rec at Community Center, Police/Admin at Bratenahl Center - New Construction	• Same Pros as Concept 3A • Not locked into existing building architecture	• More costly than Concept 3A	$$$-$$$$
	Concept 3B	Rec at Village Park, Police/Admin at Bratenahl Center	• Same Pros as Concept 3A • Consolidates Rec indoor/outdoor activities • Leaves the current Community Center available for Residential development • Leaves Village Hall to be repurposed.		$$$-$$$$
	Concept 3B.1	Rec at Village Park, Police/Admin at Bratenahl Center - New Construction	• Same Pros as Concept 3B • Not locked into existing building architecture	• More costly than Concept 3B	$$$$-$$$$$
	Concept 3C	Rec at Bratenahl Center, Police/Admin at Village Hall	• Leaves the current Community Center available for Residential development • Maintains Police presence at Village Park	• Moves Rec programming further from Residents who utilize rec services	$$$-$$$$

TOWN HALL #1 - CONFIGURATION & SITE ANALYSIS

The fourteen sites were analyzed for pros and cons. Ultimately three additional options were desired for further investigation. These were presented at a community Town Hall on May 16th, 2022

Concept 1A.1 - Campus Center (1 Site)

All services located at Bratenahl Center - Renovation + Addition

Concept 1A.1: Opinion of Probable Project Cost: $10.5M - 14.8M
Millage = 6 Mills - 8 Mills

Positives

- Most centrally located site, easily accessible from highway
- Leaves the current Community Center available for residential development
- Police can respond to community easily without disrupting residential areas
- Great location against the nature preserve; access to existing outdoor space
- Provides all desired programing elements for all departments

Negatives

- Most expensive remaining option
- Potential conflicts with all users on one site
- Removes Police presence from Village Hall Site
- Potential issues with site water management
- Have to tie into existing architecture

Concept 1A.2 - Campus Center (1 Site)

All services located at Bratenahl Center - Renovation + Addition

Concept 1A.2: Opinion of Probable Project Cost: $6M - 8.5M
Millage = 4 Mills - 5 Mills

Positives

- Most economical remaining option
- Most centrally located site, easily accessible from highway
- Leaves the current Community Center available for residential development
- Police can respond to community easily without disrupting residential areas
- Great location against the nature preserve; access to existing outdoor space

Negatives

- Potential conflicts with all users on one site
- Removes Police presence from Village Hall Site
- Potential issues with site water management
- Have to tie into existing architecture
- Does not provide all desired programing elements for all departments

Concept 1B.1 - Campus Center (1 Site)

All services located at Village Hall Site - New Construction, 2 Buildings

Concept 1B.1: Opinion of Probable Project Cost: $10M - 14.5M
Millage = 6 Mills - 8 Mills

Positives
- Leaves the current Community Center available for residential development
- Leaves the Bratenahl Center for development
- Maintains Police presence at Village Park
- Consolidates Rec indoor/outdoor activities
- Leaves Village Hall to be re-purposed
- Maintains one stop shop campus feel but provides separation of use

Negatives
- One site entry/exit point could pose a challenge with site circulation
- Loss of existing green space
- Limited parking, loss of more green space will be required to accommodate parking
- Exceeds goal of 5 Mills or less

TOWN HALL #2 - CONFIGURATION & SITE ANALYSIS

Tree additional options were desired for further investigation. These were presented at a community Town Hall on June 7, 2022

NEW POLICE STATION WITH RENOVATION FOR ADMIN OFFICES & COMMUNITY SUPPORT SPACES

18,800 SF | OPINION OF PROBABLE PROJECT COST $6,000,000 - $8,500,000 | MILLAGE = 5 MILLS

Recommendation 1: Opinion of Probable Project Cost: $6M - 8.5M
Millage = 5 Mills

Positives
- Most economical remaining option

Most centrally located site, easily accessible from highway
- Leaves the current Community Center available for residential development
- Police can respond to community easily without disrupting residential areas
- Great location against the nature preserve; access to existing outdoor space
- Site could allow for a private development of a professional building

Negatives
- Potential conflicts with all users on one site
- Removes Police presence from Village Hall Site
- Potential issues with site water management.
- Have to tie into existing architecture
- Does not provide all desired programing elements for all departments.

NEW POLICE STATION WITH ADMIN OFFICES & COMMUNITY SUPPORT SPACES

15,000 SF | OPINION OF PROBABLE PROJECT COST $7,000,000 - $10,000,000 | MILLAGE = 6 MILLS

Concept 2A: Opinion of Probable Project Cost: $7M - 10M
Millage = 6 Mills

Positives
- Leaves the current Community Center available for residential development
- Leaves the Bratenahl Center for development
- Maintains Police presence at Village Park
- Leaves Village Hall to be re-purposed

Negatives
- One site entry/exit point could pose a challenge with site circulation
- Loss of existing green space
- Exceeds goal of 5 Mills or less

NEW POLICE STATION WITH ADMIN OFFICES & COMMUNITY SUPPORT SPACES

15,000 SF | OPINION OF PROBABLE PROJECT COST $7,000,000 - $10,000,000 | MILLAGE = 6 MILLS

Recommendation 2B: Opinion of Probable Project Cost: $7M - 10M
Millage = 6 Mills

Positives
- Leaves the current Community Center available for residential development
- Leaves the Bratenahl Center for development
- Maintains Police presence at Village Park
- Leaves Village Hall to be re-purposed

Negatives
- One site entry/exit point could pose a challenge with site circulation
- Loss of existing gazebo
- Exceeds goal of 5 Mills or less

NEW POLICE STATION WITH SUPPORT SPACE

12,000 SF | OPINION OF PROBABLE PROJECT COST $6,000,000 - $8,000,000 | MILLAGE = 5 MILLS

PREFERRED SITE OPTION

The analysis of 20 different configurations resulted in one preferred site option.

Preferred Site Option: Opinion of Probable Project Cost: $6M - 8M
Millage = 5 Mills

Positives

- Leaves the current Community Center available for residential development
- Leaves the Bratenahl Center for development
- Maintains Police presence at Village Park
- Consolidates community activities
- Leaves Village Hall to be re-purposed
- Maintains one stop shop campus feel but provides separation of use

Negatives

- Does not account programing space related to the community and recreation department

RECOMMENDATION

EXECUTIVE SUMMARY

The focus of this feasibility study was determining the direction of the Village's Police, Administration and Recreational departments physical assets for the current residents and future generations. The goal of this feasibility study is to provide guidance on:

- Probable Functional Program and Size
- Facility Configuration and Location
- Probable Construction and Project Cost

A six month long extensive analysis of the potential sites, possible configurations and program analysis occurred with the input of council, steering committee members, and residents. This process was outlined in the previous pages of this document and included the following meetings and working sessions:

- Steering Committee Visioning Session
- Programming Meetings
  - Police
  - Administration
  - Recreation
- Steering Committee Concept Meeting
- Town Hall Concept Meeting
- Town Hall Concept Response Meeting
- Council Meetings (8 total)

Through this process it became apparent that the Police Department has the greatest need for additional space to function properly. Thus, finding the best solution for the longevity of the department became the driving factor on determining the outcome of this study. Additionally, a budget cap of five millage was provided to guide the discussion and process. The exact amount of revenue that this millage would produce is unknown but currently understood to be approximately $8M to $9M. A portion of this is earmarked to pay down $2.4M that was borrowed to build the Service Garage. The exact amount of the pay down will be determined once funding is procured.

These parameters guided the process to study 20 different building configurations, including new, renovation and additions on three different sites. These options were discussed and presented at two well attended Town Hall meetings. Based upon the community feedback that was received the final recommendation is as follows:

1. Construct a new Police Station and Village Hall located on the site of Village Hall and Park. A 12,000 square foot building will provide space for the Police Department and Village Administration.
2. Explore opportunities to redevelop the Bratenahl Center through a competitive process.
3. As the budget will not support the recreational and community activities at this time a further investigation to determine revenue sources needs to be completed.

This approach will create an asset to attract and retain police officers.

EXECUTIVE SUMMARY - CONTINUED

These recommendations are based upon critical success factors that were determined through the completion of the feasibility study process. Proceeding in this manner provides the current residents of Bratenahl with a facility that they will be proud of for generations to come.

Bratenahl Feasiblity Study

06.27.2022 - Budget Expectations

Final Recommendation

	Industry Standard			
	Low		High	
New Construction Cost/SF:	$380.00		$470.00	
New SF	12,000		12,000	
	$4,560,000.00		$5,640,000.00	
Contingency	5%		10%	
	$228,000.00		$564,000.00	
Renovation Cost/SF	$225.00		$275.00	
Renovation SF	0		0	
	$0.00		$0.00	
Contingency	5%		10%	
	$0.00		$0.00	
TOTAL Construction Cost:	**$4,788,000.00**		**$6,204,000.00**	
Soft Costs				
Furniture Fixtures & Equipment (% Const	8.0%		10.0%	
	$383,040.00		$620,400.00	
Survey	$2,500.00		$5,000.00	
Plan Reviews	$3,500.00		$8,000.00	
Reimbursable	$5,000.00		$7,500.00	
A/E Design Fees (% Const)	8.0%		10.0%	
	$383,040.00		$620,400.00	
Civil Engineer Design Fees (% A/E Fees)	5.0%		10.0%	
	$19,152.00		$62,040.00	
Contingency	5%		10%	
	$120,250.00		$405,310.00	
TOTAL Soft Cost:	**$916,482.00**		**$1,728,650.00**	
OPINION OF PROBABLE COST	**$5,704,482.00**		**$7,932,650.00**	

*Opinion of Probable Cost is related to the date of this document and does not include provisions for inflation, changes in construction market, nor other unknown items specific to the details of the project.

APPENDIX