



Building Assessment & Renovation Analysis

Banta Center

605 Beech Street
Valparaiso, Indiana

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1.0 | INTRODUCTION

This Study includes Building Assessments, Renovation Analysis and Conceptual Estimates for work at the Banta Center, for maintaining it as a viable structure for the next 50 years.

Location:	605 Beech Street, Valparaiso, Indiana 46383
Building Use:	Senior Center
Stories:	Two
Age:	Built in 1924
Area:	7,390 square feet First Floor / 6,794 square feet Second Floor
Building Use:	First Floor: East and west entries, elevator, reception, staff offices, multi-purpose room, lounge area, library, men's toilet, women's toilet, warming kitchen, kitchen storage, mechanical, coat room. Second Floor: Game rooms (3), exercise room, coffee area, sewing room, private office, craft room, day (reading) room, janitor, music room, single use toilet.

The study consists of the following tasks:

1. **Existing Building Documentation**
 - A. CAD documentation to scale of existing Floor Plans, and photographic documentation
2. **Structural Building Assessment:**
 - A. Documentation of field verification of existing observable conditions assessing the integrity of the structure and systems.
3. **Architectural Building Assessment:**
 - A. Field verification of existing observable conditions to assess the physical facilities. Document building elements which require repair, replacement or upgrading.
 - B. Architectural components review and report
 - 1) Exterior envelope including walls, openings and roofing
 - 2) Interior framing system(s)
 - 3) Floors and roof deck
4. **Building Systems Analysis**
 - A. Based on review of conditions of existing Mechanical, Electrical and Plumbing systems, prepare Building Equipment Systems Narrative for suggested improvements, including proposed equipment, heating/cooling improvements.
5. **Accessibility Assessment / ADA Report**
 - A. Field verification of existing observable conditions to assess the physical facilities. Document building elements which require repair, replacement or upgrading.
6. **Conceptual Estimate**
 - A. Itemized outline of each category of work and associated cost, based on assessments.
 - B. Estimate for total improvements.
 - C. Estimate for Alternate Optional improvements.
7. **Photographic Documentation**
8. **Assembly of Floor Plans**

A detailed code analysis is excluded from this study as it is assumed that the building is legal non-compliant with present day codes, and only future renovations altering life safety aspects of the building will be required to comply with current codes.

This study also does not recommend floor plan changes to improve or alter present functional uses, but focuses on improvements for continued general viability.

Testing for hazardous materials such as asbestos, mold, lead paint and radon are not part of this study, and it is recommended that testing for these materials be performed by a qualified testing company, along with addressing any found hazardous materials.

2.0 | STRUCTURAL BUILDING ASSESSMENT

The following represents the results of a general structural assessment at the above referenced building, and the scope of work was limited to performing a visual review of accessible components at the facility prior to preparing the report. Review of the drawings helped to identify areas which would be important to observe on-site and to aid in evaluating design concerns in the existing structure. This report includes:

- Documentation of the conditions observed and the severity of the conditions.
- Recommendations for further testing or investigation based on observations.
- Recommendations for repairs based on observations.

No destructive or non-destructive testing was performed during our observations. Conclusions and recommendations are based on review of the enclosed information, and our field observations. Should any information become available which materially affects the validity of the aforementioned information, we reserve the right to modify this report accordingly.

PROJECT BACKGROUND

The building located at 605 Beech Street in Valparaiso, Indiana, a former elementary school currently known as “The Banta Center”, is a two-story multi-use structure on a crawlspace. The original building drawings were not available, thus the date of construction of the building is not known. The building is two-story, built with multi-wythe clay masonry exterior walls, floors constructed of dimensioned lumber, and a rafter roof with collar ties and no ridge beam.

VISUAL OBSERVATIONS

The building structural elements were generally reviewed for signs of obvious, original construction defects, distress, and any structurally unsound conditions.

The structure was reviewed where access was available and safe. Spaces classified per OSHA requirements as “Confined Spaces” were not entered. Climbing or fall arrest equipment was not used for access. The exterior was reviewed from the ground or adjacent elevated positions; the interior was reviewed from available vantage points provided by flooring, stairs and ladders. The assessment team could not locate access to the crawlspace to view the first-floor framing and interior foundations. Records of our observations were recorded with handwritten field notes and photographs.

A scale of **Excellent** to **Poor** is used to describe the general condition of the structural elements. These descriptions, as used in this report, are defined as follows:

- Excellent** The structural components are in a “like new” condition, and are performing as intended.
- Good** The structural components show minor but structurally insignificant deterioration, and are performing as intended.
- Fair** The structural components exhibit some deterioration distress, but appear to be performing adequately although not as originally intended.
- Poor** The structural components are significantly deteriorated, and are not performing as intended.

STRUCTURAL AREA REVIEWS

The structures reviewed, and the general observations associated with each, are detailed in the following paragraphs:

Main Floor: Fair

The existing building was designed with dimensioned lumber joists and steel columns. It is likely that wood beams and columns compose the interior load-bearing structural system, but all locations are covered in plaster. Load bearing multi-wythe clay masonry walls form the exterior of the structure. Interior partition walls are typically constructed of clay tile bricks covered in plaster. The inspection revealed the exposed steel dimension lumber joists in good condition.

The masonry walls and pier appear to be in good condition. The feel of the floor indicates that the type of construction varies in different areas of the building.

Concerns:

- Crawlspace was not accessible. Inspection of first floor structure and interior foundations could not be performed.
- The mechanical room column appears to lack positive connection to the existing pier.
- The director's office floor in the southwest corner of the building exhibits moderately excessive deflection. Inspection of the area through the crawlspace is recommended to determine the cause of the deflection.

Recommended Repairs:

- Further investigation is required to determine if foundations and crawlspace is in acceptable condition.
- Create crawlspace access door in all crawlspace areas.

Second Floor: Good

The existing floor here was designed with steel beams, joists and clay masonry walls. The visible steel framing is in good condition. The floor structure is concealed with plaster or gypsum board, except in the mechanical room, but we were able to inspect a small area of the 2nd floor joists through small existing holes in the plaster secured to the joists by use of a borescope.

Concerns:

- Water damage at the corners of the gable end could cause structural problems if left untreated as wood rot and degradation of the load-bearing masonry walls occurs.

Recommended Repairs: None

Mechanical Room: Fair

A steel beam bears on a clay masonry pilaster at one end, and a steel pipe column on the other side. That pipe column bears on a clay masonry pier, 6 courses high. The steel column is bearing on a clay masonry pier that does not appear to be positively attached to the baseplate (Figure 1).

Recommended Repairs: Anchor pier to baseplate.

Attic/Roof Framing: Good

The existing roof consists of rafters at a 12:12 pitch with collar ties at each rafter. The rafters bear on multi-wythe clay masonry walls, with a wood plate secured to the masonry wall with anchor bolts. The rafters are bird-mouthed and toenailed to the plate. Joists supporting the second-floor ceiling bear on the masonry wall and do not connect to the rafters but bear approximately 12 inches below the wood plate.

Additional uplift resistance is provided by dimension lumbar hold-down braces nailed to the rafters and the attic joists at approximately 6 foot spacing. One of these hold-down braces has been broken and should be replaced with like.

The roof decking is composed of 1x6 boards flatwise spanning perpendicular to the rafters. Various repairs are present, mainly at added and removed roof penetrations. The roof decking is in good condition (Figure 5). The building paper appears to be in good condition, see architectural report regarding roof flashing and shingles.

In eight locations, the corners of the gable end walls, there are areas where water has entered the building envelope and caused significant degradation of the stub walls that bear on the roof joists, supporting 2 or 3 rafters (Figure 3).

The stub walls should be replaced or reinforced at all 8 locations. This water infiltration may be exacerbated by the lack of significant insulation in the attic area, potentially leading to ice dams.

Concerns:

- Water damage could cause structural problems if left untreated as wood rot and degradation of the load-bearing masonry walls occurs.

Recommended Repairs:

- One damaged hold-down brace should be repaired or replaced.
- The degraded stub walls should be repaired or replaced.

Exterior Walls: Fair

The exterior walls are in fair condition, with small areas of degraded mortar. The most severely degraded areas are at the corners of the gable ends near the top of the wall and the back side of the west and main entrance parapets. See architectural report for more information.

The gables end of the northeast gable has been repaired. The interior two wythes have been removed and replaced with concrete block (Figure 4).

Concerns:

- Areas of degraded mortar require tuckpointing. See architectural report for detailed locations.
- Caulk between limestone cap stones at entryways should be repaired.

Recommended Repairs:

- Tuckpoint areas of degraded mortar.
- Repair connection between limestone caps.

STRUCTURAL ASSESSMENT CONCLUSION:

The building reviewed at 605 Beech Street in Valparaiso, Indiana was generally in good to fair condition. The review of the existing building was able to determine the basic framing of the building and determine that the majority of the structural elements were in adequate condition. There were a few minor issues with the building envelope and attic that should be addressed. However, none of these issues are structurally significant, and the building is in good structural condition at this time.

STRUCTURAL RECOMMENDATIONS:

- Retain a contractor for repair of issues indicated in this report.

It is recommended that Repair Documents be prepared by a qualified architect and engineers experienced with these types of repairs. Repair Documents are recommended to define the methods and materials recommended for the repairs.

It is recommended that the construction repair work be performed by a qualified General Contractor experienced in similar repair work. Additionally, a testing agency is recommended to be retained to perform quality assurance reviews of the work performed. This work includes:

- Clay masonry repair and proper mortar selection.
- Repairing distressed/defective structural members with a replace-in-kind or repair.
- Evaluating roof and building envelope deficiencies.
- Create access door(s) to crawl space(s).
- See architectural report for plaster repairs.

3.0 | ARCHITECTURAL BUILDING ASSESSMENT

The following represents the results of a general architectural assessment of the building, and the scope of work was limited to performing a visual review of accessible components at the facility prior to preparing the report. Review of the drawings helped to identify areas which would be important to observe on-site and to aid in evaluating design concerns in the existing structure. This report includes:

- Documentation of the conditions observed and the severity of the conditions.
- Recommendations for repairs based on observations.

EXTERIOR ENVELOPE CONDITIONS

1. Walls: Solid Load Bearing Masonry
 - a) Face brick all sides with some limestone detail. Rowlock brick window sills
 - b) Masonry is in good condition, with the exception of localized open brick joints and evidence of moisture penetration at several areas inside the building described within this report.
2. Exterior Stonework:
 - a) Parapets: Stone Copings
 - b) Limestone copings at gabled end walls.
 - c) Stone header and brackets over east & west entry doors. Stone sill and surround on windows above east and west entry doors.
 - d) South side main entry canopy stone fascia and coping. Stair wall caps.
3. Roof: Asphalt Shingles
 - a) Existing asphalt shingles approx. 20 years old, with ridge vent
 - b) Rain water for the building is captured by a gutters and downspouts to below grade – to municipal system.
4. Windows:
 - a) Vinyl double hung replacement sash w/ screens, aluminum trim and insulating glass
 - b) Two small side windows east and west entries, original wood divided light, non-insulated.
5. Doors:
 - a) East and West entry doors full light clear anodized aluminum doors and aluminum frame with insulating glass. Note: no ADA door operator
 - b) South elevation Entry doors divided light wood doors and frame, non ADA accessible
 - c) North Elevation, exterior door from Kitchen: flush hollow metal door and frame.
 - d) Note: No interior vestibule doors.

INTERIOR CONDITIONS

1. Floor:
 - a) First Floor: Several areas slab on grade, other areas wood joist construction over crawl space
 - b) Second Floor- wood joist framing, wood flooring.
2. Stairs:
 - a) Concrete filled steel pan stairs and risers. Rubber treads and landings, low masonry guard wall between flights, wood handrails.
3. Flooring:
 - a) Combination of carpeting, resilient tile, ceramic tile, sheet vinyl, concrete.
4. Walls:
 - a) Exterior walls are constructed of solid brick masonry, plaster finish.
 - b) Interior load bearing walls solid masonry, plaster finish.
 - c) Interior partitions vary: Drywall over wood stud or, plaster over wood stud or clay tile.
5. Ceilings:
 - a) Predominantly suspended acoustical tile, with some areas of sheetrock ceiling or plaster.
 - b) Ceilings above suspended ceilings – plaster.

6. Attic:
 - a) Accessible by wood stair from Room 211. Unfinished, wood frame rafters and ceiling joists, unheated, vented to outside with ridge and gable vents.
 - b) Insulation: Approx. 6" loose fiber insulation between ceiling joists.
 - c) Several HVAC units located in attic. See Mechanical comments.

EXTERIOR RECOMMENDATIONS

1. Walls:

Masonry joint restoration to include an allowance for tuck pointing with mortar to match existing, to include not limited to:

 - a) Backside of West Entry gable.
 - b) Backside of East Entry gable
 - c) East and west corners of southwest gable at eave line and below.
 - d) East and west corners of southeast gable at eave line and below.
 - e) Backside of South Entry Canopy
 - f) North wall eave line east of kitchen door.
2. Limestone copings and caps - joint restoration.
 - a) Replace open joint sealant as required.
3. Roof:
 - a) Reroof gable roof areas. This shall include removal of existing roofing and underlayment and replace with Class A architectural asphalt shingles over 30lb. roofing felt, ice and water shield at ridges, rakes, valleys and eaves. Repair and replace related flashings and trim.
 - b) Replace ridge vents.
 - c) Add roof vents as required.
 - d) Install heat trace wiring in gutters and down spouts. Include exterior electrical outlets for heat trace.
4. Repair damaged Central Entrance concrete stair tread.
5. Repair north east gable louver.
6. Windows:
 - a) Remove and replace small windows flanking East and West Entry doors with aluminum frame, insulated glass and trim.
7. Doors:
 - a) Install automatic door operators at West Entrance.
 - b) Replace North elevation hollow metal door frame and hardware from Kitchen to exterior.
 - c) Replace central entry doors and hardware with architectural aluminum divided half- light doors and panic hardware, weather stripping complete.
 - d) See also comments on ADA Report / Door comments.
8. Crawl Space:
 - a) Close existing crawl space vents (south elevation). Install 15 mill vapor barrier. Apply 2" Spray foam insulation to exterior foundation walls.
9. Site:
 - a) At north exterior door from kitchen, provide drain to storm water system.

INTERIOR RECOMMENDATIONS

General:

1. Where new floor finishes are indicated, remove existing flooring and prepare surface as required to receive new floor finish and vinyl base.
2. All exterior walls to be furred and insulated, from floor to underside of structural floor/ceiling above. Remove wood base and trim. Install 3 5/8" metal studs 16" o.c. over existing plaster, 2" spray foam insulation, with 5/8" drywall finish. Mechanical spaces and previously insulated areas are to remain.
3. Replace all interior doors and hardware including wood doors with divided sidelights.

First Floor Rooms:

1. **Entry 100:** Provide VCT flooring and base. Paint all walls, trim and drywall ceiling.
2. **Stair 101A:** New rubber treads, risers and landing. Paint all walls and ceilings. See also ADA comments for handrail and guardrails.
3. **Understair 101A:** Unfinished. Floor- concrete slab on grade
4. **Corridor 102:** Provide new VCT flooring and base. Paint all walls and trim. Repair north cove light fascia, replace ceiling tile and grid.
5. **Equipment 103:** Mortar patch clay tile hole at south west corner at floor. Tape and paint unfinished drywall, paint plaster and trim. Replace damaged ceiling tile. Floor to remain as is.
6. **Elevator 104:** Replace floor finish.
7. **Corridor 105:** Provide new VCT flooring and base, paint all walls and trim. Replace damaged ceiling tile to match existing.
8. **Corridor 106:** Provide new carpet and base. Paint all walls and trim. Replace damaged ceiling tile to match existing'
9. **Corridor 107:** Provide new carpet and base. Refinish visible horizontal drywall joints. Paint all walls and trim. Replace damaged ceiling tile to match existing.
10. **Storage 108:** Provide new VCT floor and base. Paint all walls, ceiling and trim,
11. **Multi – Purpose Room:** Provide new VCT floor flooring and base. Paint all walls and trim. Replace ceiling tile and grid.
12. **Corridor 110:** Provide new carpet and base. Paint all walls and trim. Replace damaged ceiling tile to match existing.
13. **Central Stair 111:** Provide new rubber treads, risers and landing finish. Paint all walls, ceilings and trim. See ADA comments for handrail and guardrails.
14. **Understair 111A:** Unfinished. Partial existing oak floor, balance wood board sheathing.
15. **Mechanical 112:** Tape and paint unfinished drywall. Caulk, trim and paint trim of interior existing windows. Repair existing east wood stair and provide new rubber treads risers and landing. Remove and reinstall railing as required.
16. **Lounge:** Provide new VCT and base. Paint all walls and trim. Replace damaged ceiling tile.
17. **Yoga Room 114:** Repair blistered plaster finish, south wall – east. Evidence of moisture issues at window head. Provide new carpet and base. Paint all walls and trim. Ceiling tile to remain.
18. **Corridor 115:** Provide new carpet and base. Paint all walls and trim. Replace damaged ceiling tile. Remove hinges from west door frame. Patch and fill mortices, paint frame.
19. **Warming Kitchen 116:** Replace sheet flooring and base. Repair or replace damaged FRP panels west and east wall. Replace all base and wall hung cabinets with plastic laminate millwork with solid surface countertops and new stainless steel sink. Replace ceiling grid wall angle west wall where cut. Replace damaged ceiling tile to match existing.
20. **Pantry 117:** Repair water damage to floor at exterior door. Replace sheet flooring and base. Paint walls. Replace damaged ceiling tile.
21. **Storage 118:** Replace sheet flooring and base. Paint walls. Replace ceiling tile and grid.
22. **Women 119:** Ceramic floor tile to remain. Toilet partitions to remain. Paint all walls. Replace damaged ceiling tile to match existing. See also ADA comments.
23. **Women 120:** Provide new VCT floor tile and base. Paint all walls and trim. Replace any damaged ceiling tile to match existing.
24. **Men 121:** Provide new VCT flooring and base. Repair plaster wall above urinals. Paint all walls and trim. Replace damaged ceiling tile to match existing
25. **Men 121A:** Provide new VCT flooring and base. Patch hole at south wall over urinals. Paint all walls and trim. Replace damaged ceiling tile. See also ADA comments.
26. **Corridor 122:** Provide new VCT floor tile and base. Replace any damaged ceiling tile to match existing. Remove abandoned piping per mechanical report. Patch and repair pipe penetrations. Paint walls, ceilings and trim. See also ADA comments.
27. **Entry 123:** Provide new VCT floor tile and base. Patch and repair plaster ceiling. Paint all walls ceilings and base.
28. **East Stair 123A:** Provide new rubber treads risers and landing. Patch and repair existing plaster. Paint all walls, ceilings and trim.
 - a. See ADA remarks regarding handrails and guardrails.
29. **Understair 123B:** Unfinished. Floor – concrete slab on grade. Patch and repair plaster walls and ceilings as required. Paint all walls, ceilings and trim.
30. **Storage 124:** Provide new carpet and base. Remove horizontal wood trim boards south wall. Patch and repair existing plaster as required. Paint all walls, ceilings and trim.
31. **Library 125:**
Patch and repair water damaged plaster above and below existing suspended ceiling, southwest corner. Repair plaster crack(s) west wall. Provide new carpet and base.

Shelving south and west wall to remain.

Remove wood and glass storage cabinet, north and east walls.

Remove tack surface and board frame - patch plaster.

Paint walls and trim. Replace damaged ceiling tile and grid to match existing.

32. **Waiting 126:** Provide new carpet and base. Paint all walls and trim. Provide new ceiling tile and trim.
33. **Reception 127:** Provide new carpet and base. Provide new plastic laminate countertop. Paint walls and trim. Replace ceiling tile and grid.
34. **Office 129:** Repair floor sag, south wall – see structural review. Provide new carpet and base. Replace existing ceiling tile and grid. Paint all walls and trim.
35. **Work 130:** Patch and repair water damaged wall and ceiling plaster east and south walls. Provide new plastic laminate countertop. Provide new carpet and base. Paint all walls and trim.
36. **Crawl Space:** Provide access to existing crawl space. Location to be determined.

Second Floor Rooms:

1. **West Stair 200:** New rubber treads and risers. Replace upper landing carpet. Paint all walls and ceilings. See also ADA comments for handrail and guardrails.
2. **Office 201:** Provide new carpet and base. Paint all walls and trim. Provide new ceiling tile only, grid to remain.
3. **Elevator 202:** See Elevator 104.
4. **Corridor 203:** Provide new carpet and base. Ceiling tile and grid to remain. Paint walls and trim.
5. **Toilet 204:** Ceramic floor tile to remain. Ceramic wall tile to remain. Paint all walls, ceiling and trim. See also ADA comments regarding plumbing fixtures, countertop and toilet accessories.
6. **Office 205:** Provide new carpet and base. Repair drywall ceiling and corner joints. Paint all walls ceiling and trim.
7. **Game Room 206:** Provide new carpet and base. Patch and repair water damaged plaster, walls and ceiling, above and below suspended ceiling, south east and south west corner. Repair damaged drywall bulkhead these areas. Paint all walls and trim. Replace existing ceiling tile and grid.
8. **Game Room 207:** Provide new carpet and base. Paint all walls and trim. Replace ceiling tile and grid.
9. **Exercise 208:** Provide new carpet and base. Paint all walls and trim. Replace damaged ceiling tile to match existing.
10. **Exercise 209:** Provide new carpet and base. Paint all walls and trim. Replace damaged ceiling tile to match existing.
11. **Central Stair 210:** Provide new rubber treads and risers. Provide new carpet and base at upper landing. Patch and repair existing plaster walls. Paint all walls, ceilings and trim. See also ADA comments regarding handrails and guardrails.
12. **Kitchenette:** Provide new sheet vinyl floor and base. Replace all base and wall hung cabinets with plastic laminate millwork with plastic laminate countertop and new stainless steel sink. Paint all walls and trim. Replace damaged ceiling tile to match existing.
13. **Attic Stair 211A:** Unfinished wood stair and risers up to attic. Stair is neither heated or cooled and open to the attic. Provide rubber treads and risers and landing. Consideration should be given to provide an upper landing with enclosure and door with ventilation to this area. Paint all walls and trim.
14. **Billiard Room 212:** Provide new carpet and base. Replace damaged wood mullion casing and trim at south window. Remove chalk boards and trim – patch plaster. Replace damaged ceiling tile to match existing. Paint all walls and trim.
15. **Sewing Room 213:** Provide new carpet and base. Patch and repair crazed plaster at south wall window jamb. Remove chalk board and trim – patch plaster. Paint all walls and trim. Replaced damaged ceiling tile to match existing.
16. **Private Office 214: Not reviewed.** Provide new carpet and base. Patch and repair existing plaster as required. Paint all walls and trim. Replace damaged ceiling tile as required – to match existing.
17. **East Stair 215:** New rubber treads and risers. Replace upper landing carpet. Paint all walls and ceilings. See also ADA comments for handrail and guardrails.
18. **Lounge 216:** Provide new carpet and base. Repair plaster blisters north wall. Paint all walls and trim. Ceiling tile and grid to remain as is.
19. **Storage 217:** Provide new carpet and base.. Paint all walls and trim. Ceiling tile and grid to remain.
20. **Janitor 218:** Floor finish to remain as is. Patch and repair existing plaster north and south walls and ceiling. Paint all plaster walls and trim.
21. **Corridor 219:** Provide new carpet and base. Paint all walls and trim. Ceiling tile and grid to remain.

Attic:

1. Add 8” fiberglass blanket insulation to attic.

4.0 | BUILDING SYSTEMS ANALYSIS

FIRE PROTECTION SPRINKLER SYSTEMS

- The facility does not have a fire protection sprinkler system.
- The facility may remain in operation without a fire protection sprinkler system in a legal non-compliant status, but an alternate cost estimate to add this system is included in the Opinion of Cost section of this study, if the system is desired to be added in the future for safety, or if major renovations are undertaken.

Recommendation:

- Provide a sprinkler water service, distribution piping, sprinkler heads, etc. to sprinkle the entire facility when appropriate.

PLUMBING SYSTEMS

Water Service and Back Flow Prevention:

- A 2" water service enters the facility on the north side of the boiler room. The water service has a 2" water meter and a main shut off valve. The incoming water service does not have a reduced pressure back flow preventer.
- In the boiler room, the boiler water make-up has a reduced pressure back flow preventer to separate potable water from the non-potable boiler system.
- The cold-water fill that serve the cooling tower does not have a back flow preventer.

Recommendation:

- Confirm water pressures and provide a reduced pressure backflow preventer on the domestic water service.
- Provide a reduced pressure backflow preventer on the cooling tower domestic water fill line.

Water Heaters:

- A Richmond # 6G50-38F3 domestic water heater, 50 gallons storage and 38,000 BTU input is in the boiler room.
- The water heater was installed in August 2017, and it is in good condition.
- The water heater in the boiler room does not have a thermal expansion tank.
- This water heating system does not have a tempered water mixing valve.
- There does not appear to be any hot water return piping for the water heater system.

Recommendation:

- Provide a thermal expansion tank on the cold-water inlet for the domestic water heater.
- Provide a tempered water mixing valve at water heater to provided tempered water throughout the facility to prevent scalding.
- Provide a hot water return piping system for the water heating system.

Water Piping Distribution:

- The domestic water piping at the water service was observed to be galvanized piping.
- The domestic water piping distribution system was observed to be galvanized and routed exposed in the toilet rooms.
- The domestic water piping does not have fiberglass piping insulation.
- Copper piping can be seen in a few locations limited to the boiler room. This piping is not insulated.
- The domestic piping distribution system does not have any apparent leaks at this time.
- Galvanized domestic water piping has a life span of approximately 40 to 50 years before it needs to be replaced.

Recommendation:

- Replace the galvanized domestic piping distribution system with new copper piping and pipe insulation with a vapor jacket.

- Conceal new piping where possible in new plumbing chases.
- Replace the existing toilet fixture with 1.6 GPF water closets and 1.0 GPF urinals to meet current plumbing code water consumption.

Sanitary and Storm:

- The overall condition of the sanitary and storm piping was not evident at the facility.

Plumbing Fixtures:

- The toilet rooms have not been remodeled and appear to have older 3 gallons per flush water closets.
- The plumbing fixtures appear original, show their age, and are in working order.
- The main kitchen was part of the 1992 renovation and appears in working order.
- The tree (3) compartment sink in the kitchen and the grease waste is piping to an exterior grease trap.
- The boiler room and second floor maintenance room laundry tub faucets have hose connections without vacuum breakers.

Recommendation:

- Replace the existing toilet fixture with 1.6 GPF water closets and 1.0 GPF urinals to meet current plumbing code water consumption.
- Replace the faucets on the two (2) laundry tubs with new faucets with vacuum breakers and hose connections.
- Inspect the exterior grease trap and clean as required.

Gas Service:

- The 2" gas service enters the facility on the north wall of the north side of the kitchen area. The gas meter and gas regulator are located outside at grade that serves the facility.
- Gas piping is routed to the boiler room.
- The gas piping distribution appears in good condition.

MECHANICAL SYSTEMS

Boiler Plants:

- There are two (2) Weil McLain water boilers in the boiler room.
- Boilers B-1 is a Weil McLain # PFG-6-PIN 30,500 BTU input capacity.
- Boilers B-2 is a Weil McLain # LGB-4 400,000 BTU and 322,000 BTU output capacity
- Boiler B-1 has pressure and temperature gauges, operating stat and relief valve- low water cut off was not evident on the boiler.
- Boiler B-2 has pressure and temperature gauge, low water cut off, high limit with manual reset stat, operating stat and relief valve.
- The Trane Tracer Temperature Control panel controls the boiler plant in the boiler room.
- The boiler plant currently has a water treatment system to chemically treat the hot/chilled heating system.
- There is a glycol 55-gallon drum with an injection pump for the piping system.
- Boiler B-1 appear to have been installed in the last 20 years. Boiler B-2 appears to be new and installed within the last year. The boilers appear in good condition. Sectional steam boilers have a life span of approximately 25 to 30 years with proper maintenance.
- There are based mounted pumps – one (1) for the hot water heating loop (120 gpm) and one (1) for the water source heat pump loop (105 gpm) in the boiler room.
- The piping distribution system is not insulated in the boiler room.
- Combustion air was not evident for the boiler plant.

Cooling Plant:

- There is a BAC # VFL -363 closed loop cooling tower located in the grass next to the parking lot.
- The closed loop cooling tower appears to have been installed during the 1998 renovations at the facility.

- There is a base mounted pump (105 gpm) that serves the water source heat pump piping loop in the boiler room. The pump does appear to have been installed during the 1998 renovations. The pump is in operable condition.
- There is a base mounted pump (25 gpm) for makeup water to the cooling tower system. Currently the pump is disconnected for winter drain down.
- The pumps appear to be 20 years old and have a life span of 30 years.
- The cooling tower appears in good condition, is approximately 20 years old, and has a life span of approximately 30 years with proper maintenance.
- It appears that the cooling tower may have available capacity as the existing WSHP fan coils appear to be at 29 tons connected load.

Piping Distribution:

- There are two (2) piping systems in the boiler room- one (1) for water source heat pumps and one (1) for hot water heating.
- The piping system is copper in the boiler room and appears to have been installed during the 1998 renovations to the facility.
- The water source heat pump pipe loop in the boiler room serves the water source heat pump fan coils in the facility to provide cooling during the summer to several rooms in the facility.
- The hot water heating loop is connected to the water source heat pump piping loop to provide heating during the winter to the water source heat pumps, radiant heating units, cabinet heaters, etc.
- A separate hot water heating loop serves the hot water duct coil in the fan coil that provides outside air to all the water source heat pump units.
- There were no apparent leaks in the piping system currently.
- The old steam and condensate piping has been abandon and is exposed in several rooms.

Recommendation:

- Remove the existing abandon steam and condensate piping in the facility.
- Provide pipe insulation with vapor barrier on piping in the boiler room.

Heating Cooling and Ventilation Systems:

- There is water source heat pump (WSHP) units with duct distribution that provide heating and cooling to the following spaces:
 - First floor office.
 - Corridor 106 and 107.
 - Multi-purpose room 109
 - Game room 205
 - Game room 207
 - Resale 209
 - Corridor 219
- Tempered fresh air is ducted to the WSHP fan coils units via a small Dedicated Outside Air unit in the attic that utilizes a hot water coil to temper the outside air.
- The WSHP units were installed during the 1998 renovations and are 20 years old. The WSHP fan coil units appear in good operational condition. WSHP units have a life span of approximately 20 years with prescribed maintenance.
- The remain rooms in the facility utilize radiant heating and operable windows for outside air ventilation.
- Quilting 114, Library 213 have thru window air conditioning units and Multi-purpose / exercise and a free-standing air-conditioning unit.

Recommendation:

- Replace the existing 8 WSHP units in the attic with new units.
- Provide approximately eight (8) new 3-ton WSHP units with duct distribution to serve the remaining portion of the facility to provide heat and air conditioning.
 - Lounge 113

- Quilting 114
- Multi-purpose 125
- Office 205
- Craft room 211
- Craft room 212
- Library 213
- Multi-purpose 214
- Replace existing boiler B-1 with a new approximate 350,000 MBH input boiler.
- Modify and add piping distribution for eight (8) new WSHP units.
- Provide a DOAS unit in the attic with hot water duct coil and duct tempered outside air to the eight (8) new WSHP units.

Exhaust Systems:

- There is a kitchen exhaust hood above the gas range. The hood does not have a fire suppression system. This hood was installed during the 1992 renovations.
- The kitchen exhaust hood fan is in the boiler room and the supply air fan is located above the ceiling in the adjacent food storage room.
- The kitchen hood exhaust duct work is exposed in the boiler room and does not have any fire wrap insulation.
- There are exhaust fans in the toilet rooms in the facility. The exhaust fans were installed during the 1992 renovations.
- Exhaust fans have a life span of 15-20 years and they should be inspected annually for proper operation.

Recommendation:

- Inspecting the exhaust fans and repair any deficiency found,
- Test and balance the exhaust fans to original exhaust air quantities.
- Provide 2 layers of fire wrap on kitchen hood exhaust ductwork.

Temperature Control Systems:

- A Trane Tracer control system is in the boiler room which appears to control the boiler plant, water source heat pump loop and cooling tower.
- A Trane control panel is in the attic to control the water source heat pump units.
- The Trane temperature controls appear to have been installed during the 1998 renovations.
- Temperature control system appears in good operational condition and has a life span of approximately 15 years.

Recommendation:

- Upgrade the existing temperature control system to an open protocol BACNET web-based temperature control system. Provide all necessary controllers, communication buss, programming, etc. for the HVAC systems.

ELECTRICAL SYSTEMS

Electrical Services:

- The main electrical service switch gear is a 600-amp 120/208-volt 3 phase 4 wire main distribution panel located in the boiler room. The service conductors are routed underground from utility poles with pole mounted transformers. The main service was installed as part of the 1993 work. The main service appears to be adequately sized for the facility. MEG will need to analyze existing historical utility bills to determine exact loading on the service.
- Panel PP-A and PP-B have been installed without proper working clearance and do not comply with code.
- Panel 'E' and 'West' are older and have outlived their life span. Additionally, they are small twenty circuit model panels.
- Main switch gear and panels have a life span of approximately 40 years. The electrical gear and panels installed in the 1993 renovations appear in good condition.

Recommendations:

- It is recommended that panels PP-A and PP-B be relocated to provide proper code required working clearances.
- It is recommended that panels 'E' and 'West' be replaced with new 42 circuit panels to provide additional circuiting capacity for the building.

Fire Alarm Systems:

- In the second-floor kitchen, there is a Fire-Lite MS-2 zoned fire alarm control panel with two zones. This panel is obsolete and cannot accommodate modern addressable devices with adjustable capabilities for early detection.

Recommendations:

- It is recommended that the existing system be upgraded to a new addressable fire alarm system.

Telephone:

- There is a telephone service located in the boiler room. Wireless phone handsets were observed in use at the main reception area.

Lighting, Emergency Light and Exit Signs:

- The lighting in the building mainly consists of recessed lensed troffers and can light fixtures. A few of the older areas have surface mount light fixtures. While the lensed troffers are newer, the remainder of the light fixtures are older and have outlived their life cycle. Many of the can fixtures are missing their trim rings. While lighting levels in spaces were adequate for younger occupants, some spaces had very low lighting levels.
- Emergency light fixtures with battery packs are located throughout the building. There is a mix of older and newer emergency light fixtures.
- Exit signs with battery packs are located throughout the building. Several were inoperable and past their life cycle.
- The site and parking areas are lit with new pole mounted LED fixtures.
- The building entrances are lit with incandescent and HID fixtures that have outlived their life cycle. The east entrance door does not have lighting over the door.

Recommendations:

- It is recommended to replace all emergency light fixtures and exit signs with new LED units. Additional emergency lighting units will need to be added to provide code compliant coverage for the building.
- It is recommended that the entire building be upgraded to LED fixtures. These fixtures should be provided for higher lighting levels to accommodate the special lighting needs of the elderly. Additionally, this would also address replacement of the numerous fixtures in the building that are past their life cycle.
- It is recommended that the building mounted lighting be replaced with new LED fixtures. The east entrance should be provided with a new fixture to provide egress lighting at the door location.

PHOTOGRAPHIC DOCUMENTATION

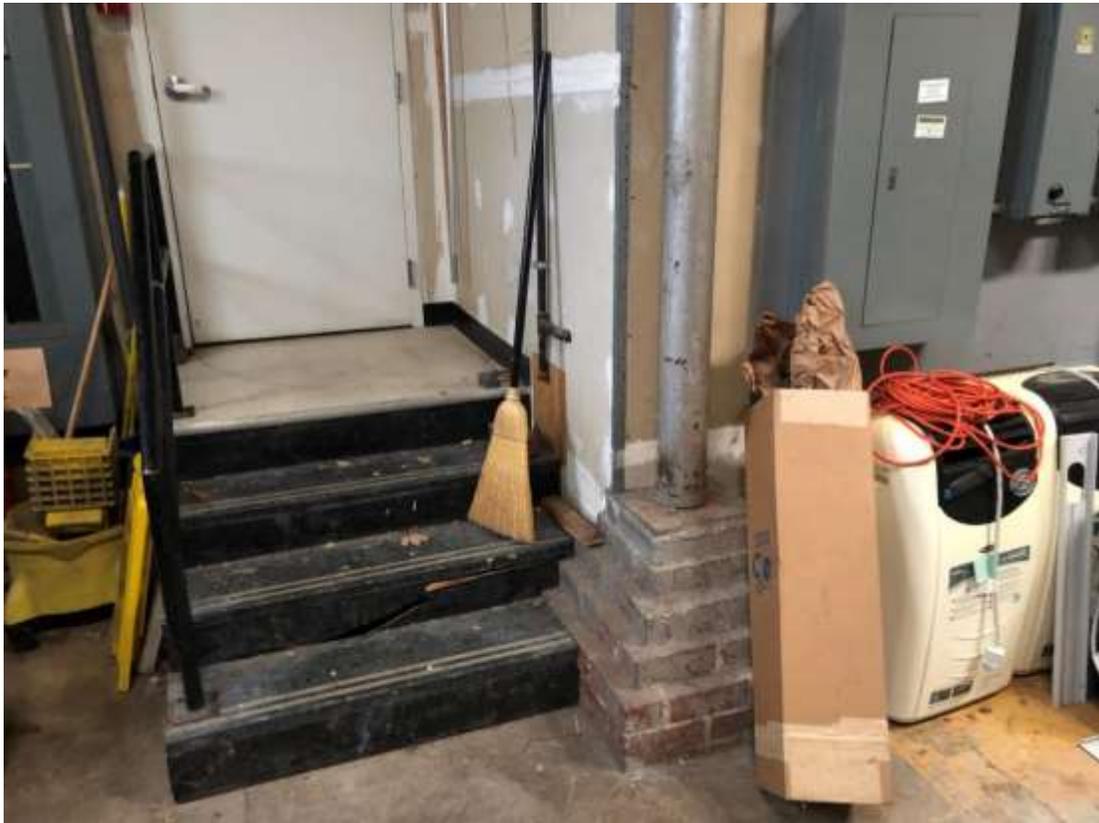


Figure 1: Mechanical Room Column



Figure 2: Roof Uplift Brace

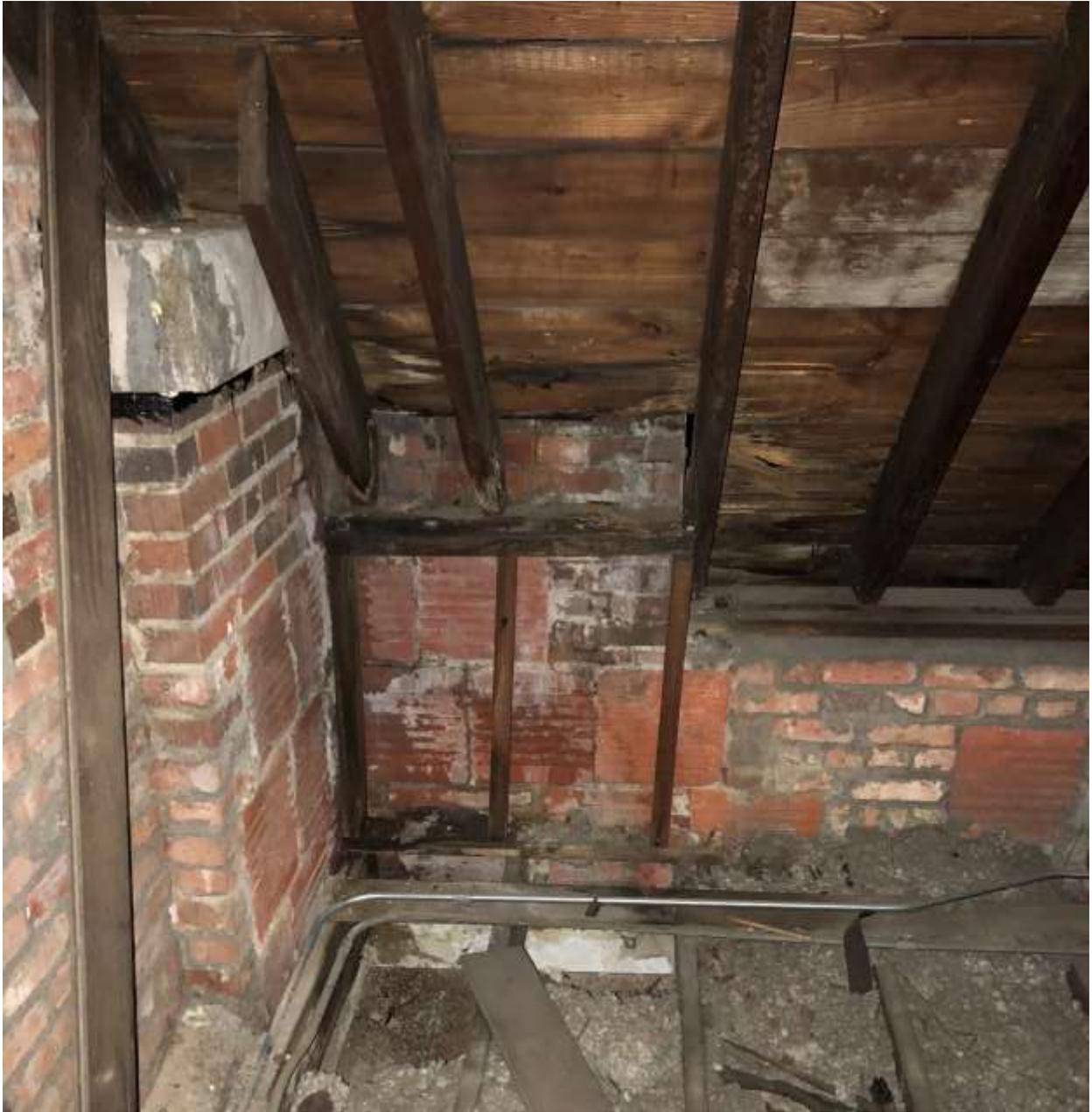


Figure 3: Northeast Gable East Roof Stub Wall



Figure 4: Northeast Gable - Repaired Gable End Wall



Figure 5: Repair of Roof Planking

Banta Center ADA Report
 Site Findings Report
 Site Address: 605 Beech Street
 Site City: Valparaiso
 Site State: IN
 Prepared by: Jeff Klancer, Shive-Hattery
 Date of site observation: 02/07/2019

Item #	Deficient Finding Description	Actual Field Condition	ADAAG Standard	ADAAG Reference	Photo #	Recommended Corrective Action Option/s
Section: 02 Exterior Entrance						
	10" clear bottom rail	7-1/2"	Required	404.2.10		Replace pair of doors with properly sized bottom rail
	International symbol sign	Not Provided	Required if non-accessible entrances exist	216.6		Install signage on accessible entry and on other entries directing people to accessible entry
Section: 09 Van Accessible Parking						
	Sign at van accessible stall	Not Provided	Required	502.6		Provide compliant van accessible signage
Section: 09.5 Accessible Parking						
	Sign Height	B/ @ 40"	B/ @ 60"	502.6		Remount sign at compliant height
	Stalls located along closest accessible route to accessible entrance	Not in location closest to accessible entry	Required	208.3.1		Relocate accessible stalls to closest parking location to accessible entry
Section: 13 Interior Route						
	Accessible route	Accessible route is 32" wide for a length of 53"	Route to be minimum 36" wide, or 32" wide for a distance no more than 24" long	403.5.1		Provide alternate accessible route or reconfigure walls to provide accessible widths
	Compliant hardware	Not Compliant	No grasp, pinch, twist	404.2.7		Provide compliant hardware (multiple locations)
	Carpeting secured at edges	Not Compliant	Required	302.2		Secure mat or install permanent recessed mat, remove exterior mat (multiple locations)
	Objects on circulation path	<4"	Objects can not protrude more than 4" into circulation path	307.2, 307.4		Fire extinguishers protrude into path of circulation in multiple locations. Provide compliant recessed fire extinguisher cabinets for existing fire extinguishers
	Room Signage	Signage provided not compliant	If signage is provided it shall be 48" to the lowest baseline character and 60" to the baseline of the highest character.	216.2, 703.5, 703.3, 703.4.2, 703.4.1, 703.5.1, 703.5.6		Provide signage for all existing rooms
Section: 14 Coffee						
	Accessible work surface height	36"	28"-34"	902.3		Lower work surface and reconfigure to provide compliant height
	Accessible work surface knee clearance	12" D, <27" H, <30" W	17"-25"D, 27" H, 30" W	306.2, 306.3		Lower work surface and reconfigure to provide compliant knee clearances
Section: 15 Customer Service Desk						
	Accessible work surface height	36"	28"-34"	902.3		Lower work surface and reconfigure to provide compliant height
	Accessible work surface knee clearance	3-1/2" D, <27" H, <30" W	17"-25"D, 27" H, 30" W	306.2, 306.3		Lower work surface and reconfigure to provide compliant knee clearances
Section: 16 First Floor Kitchen						
	Accessible work surface height	36"	28"-34"	902.3		Remove existing casework and provide new casework at compliant height
Section: 17 Second Floor Kitchenette						
	Accessible work surface height	36"	28"-34"	902.3		Remove existing casework and provide new casework at compliant height
Section: 19 Men Toilet						
	Sign, contrasting characters/background	Not Provided	Required	703.5		Install compliant signage
	Sign, raised characters	Not Provided	Required	703.2		Install compliant signage
	Sign, Braille	Not Provided	Required	703.3		Install compliant signage
	Sign, mounted on the latch side of door	Not Provided	Required	703.4.2		Install compliant signage
	Sign, height, lowest raised character	Not Provided	Required	703.4.1		Install compliant signage
	Coat hook height	63"	48"	603.4		Remount coat hook at compliant height
	Lav knee space depth	26 1/2"	17"<x<25" D, 27" Min. H	306.2		Remount sinks at compliant height
	Pipe boot	Not Provided	Required	606.5		Install compliant pipe boot

Item #	Deficient Finding Description	Actual Field Condition	ADAAG Standard	ADAAG Reference	Photo #	Recommended Corrective Action Option/s
	Faucet operation without grasp, pinch, twist	Not Compliant	Required	606.4		Replace with compliant faucet
	Towel height	56-1/2"	44" max. @ 20"+ deep lav, 48" max. @20"-deep lav	308.2		Remount at compliant height
	Toilet centerline	19"	16"-18"	604.2		Relocate toilet to compliant location
	Sidewall grab bar	36" L, 39" from rear wall, 37" H	42"L min. 12" max. from rear wall, 54" min. ext. from rear wall, 33"-36"H, 12" min. clear above, 1 1/2" min. clear below	604.5.1		Replace with compliant grab bar
	Sidewall vertical grab bar	Not Provided	Required	ANSI A117.1, 604.5.1		Provide compliant grab bar
	Rearwall grab bar	37" H	36"L min. 12" min. from c.l. of toilet, 24" min. from c.l. of toilet, 33"-36"H, 12" min. clear above, 1 1/2" min. clear below	604.5.2		Replace with compliant grab bar
	Toilet paper centerline	>7"	7"-9" from rim	604.7		Remount toilet paper holder to complaint location
Section: 20 Women Toilet						
	Sign, contrasting characters/background	Not Provided	Required	703.5		Install compliant signage
	Sign, raised characters	Not Provided	Required	703.2		Install compliant signage
	Sign, Braille	Not Provided	Required	703.3		Install compliant signage
	Sign, mounted on the latch side of door	Not Provided	Required	703.4.2		Install compliant signage
	Sign, height, lowest raised character	Not Provided	Required	703.4.1		Install compliant signage
	Coat hook height	63-1/2"	48"	603.4		Remount coat hook at compliant height
	Lav knee space depth	26" H	17"<x<25" D, 27" Min. H	306.2		Remount wall hung vanity and sink at compliant height
	Pipe boot	Not Provided	Required	606.5		Install compliant pipe boot
	Sidewall grab bar	39" H	42"L min. 12" max. from rear wall, 54" min. ext. from rear wall, 33"-36"H, 12" min. clear above, 1 1/2" min. clear below	604.5.1		Replace with compliant grab bar
	Sidewall vertical grab bar	Not Provided	Required	ANSI A117.1, 604.5.1		Provide compliant grab bar
	Rearwall grab bar	39" H, >12" clear above	36"L min. 12" min. from c.l. of toilet, 24" min. from c.l. of toilet, 33"-36"H, 12" min. clear above, 1 1/2" min. clear below	604.5.2		Replace with compliant grab bar, relocate toilet seat cover dispenser to provide 12" clear above grab bar
	Toilet paper centerline	>7"	7"-9" from rim	604.7		Remount toilet paper holder to complaint location
	Toilet paper outlet height	49"	15"-48"	604.7		Remount toilet paper holder to complaint location
	Height of seat cover dispenser	Interferes with gab bar clearances	48" max. to outlet	308.2		Relocate toilet seat cover dispenser to provide 12" clear above grab bar
Section: 21 Second Floor Uni-Sex Toilet						
	Sign, contrasting characters/background	Not Provided	Required	703.5		Install compliant signage
	Sign, raised characters	Not Provided	Required	703.2		Install compliant signage
	Sign, Braille	Not Provided	Required	703.3		Install compliant signage
	Sign, mounted on the latch side of door	Not Provided	Required	703.4.2		Install compliant signage
	Sign, height, lowest raised character	Not Provided	Required	703.4.1		Install compliant signage
	Coat hook height	72"	48"	603.4		Remount coat hook at compliant height
	Lav knee space depth	24"	17"<x<25" D, 27" Min. H	306.2		Remount wall hung vanity and sink at compliant height
	Pipe boot	Not Provided	Required	606.5		Install compliant pipe boot
	Faucet operation without grasp, pinch, twist	Not Compliant	Required	606.4		Replace with compliant faucet
	Towel height	54"	44" max. @ 20"+ deep lav, 48" max. @20"-deep lav	308.2		Remount at compliant height
	Toilet clearance	Clearance Not Provided	56"x60" (2010) 48"x60" (1991)	604.3.1		Remove urinal to provide clearance for Toilet

Item #	Deficient Finding Description	Actual Field Condition	ADAAG Standard	ADAAG Reference	Photo #	Recommended Corrective Action Option/s
	Sidewall grab bar	46" from rear wall	42"L min. 12" max. from rear wall, 54" min. ext. from rear wall, 33"-36"H, 12" min. clear above, 1 1/2" min. clear below	604.5.1		Remount grab bar in compliant location
	Sidewall vertical grab bar	Not Provided	Required	ANSI A117.1, 604.5.1		Provide compliant grab bar
	Flush on open side of toilet		Required	604.6		Provide new toilet with complaint flush location
	Toilet paper centerline	>7"	7"-9" from rim	604.7		Remount toilet paper holder to complaint location
Section: 22 Drinking Fountain						
	Drinking Fountains	2 Drinking fountains are located in property and both are out of compliance		602.2, 306.2.2, 306.2.3, 308.2.2, 309.4, 602.4, 602.5, 602.7, 307.2		Remove (2) drinking fountains and install new compliant Hi/Lo drinking fountain in compliant location and height
Section: 24 Fire Alarms						
	Horns and strobes	Not Compliant	Required	702.1		Remove existing and provide compliant horns and strobes throughout building
	Fire alarm pull boxes	Not Compliant	48" max	309.3, 308		Provide new compliant fire alarm pull boxes throughout building at compliant heights
Section: 25 Switches						
	Light switches	Not Compliant	48" max	309.3, 308		Remount light switches at compliant heights (multiple locations)

BANTA CENTER
VALPARAISO, in



BUILDING ASSESSMENT

ESTIMATE #1						Project SF	
CONCEPTUAL ESTIMATE						1st floor	7,390
March 4, 2019						2nd Floor	6,794
						Total SF	14,184
DESCRIPTION	QUANT.	UNIT	UNIT COST	TOTAL COST	CATEGORY COST	COST PER SF	% COST
GENERAL REQUIREMENTS							
SUPERVISION AND PROJECT MANAGEMENT					173,027	12.20	5.66%
based on 6 month duration							
Project Superintendent - full time	1,039	mh	110.00	114,312			
Project Manager - 16 hrs per week	416	mh	95.00	39,490			
Administration	208	mh	65.00	13,510			
General Field Superintendent	52	mh	110.00	5,716			
-							
FIELD OFFICE					3,700	0.26	0.12%
Use space inside building for construction office							
Office equipment and supplies	6	mo	450.00	2,700			
reproduction costs	1	ls	1,000.00	1,000			
-							
TRUCKING / YARD					2,500	0.18	0.08%
Job mobilize and demobilize							
	1	ls	2,500.00	2,500			
-							
TEMPORARY UTILITIES					-	0.00	0.00%
Utilities to be provided for construction at no cost							
-							
-							
SITE COORDINATION					8,000	0.56	0.26%
minor site work. allow staging area, scaffold protection							
	1	ls	8,000.00	8,000			
-							
TEMPORARY CONSTRUCTION					10,000	0.71	0.33%
Assuming building to be unoccupied during construction.							
dust partitions	1	ls	5,000.00	5,000			
Floor protection	1	ls	5,000.00	5,000			
-							
CONSTRUCTION CLEANING					18,878	1.33	0.62%
Daily clean up	104	mh	80.00	8,314			
Final Clean up	14,184	sf	0.35	4,964			
Dumpsters	16	ea	350.00	5,600			
-							
HAZARDOUS MATERIAL ABATEMENT					-	0.00	0.00%
NOT INCLUDED							
-							
-							
-							
SITWORK							
SITE DRAINAGE					17,000	1.20	0.56%
Correct Drainage concern at kitchen door							
Either regrade or provide catch basin allowance							
	1	ls	17,000.00	17,000			
-							
ASPHALT PAVING					-	0.00	0.00%
Existing parking to remain. - no work							
-							
-							
SITE CONCRETE					11,250	0.79	0.37%
repair damaged stair treads at south entrance							
	1	ls	11,250.00	11,250			

DESCRIPTION	QUANT.	UNIT	UNIT COST	TOTAL COST	CATEGORY COST	COST PER SF	% COST
				-			
LANDSCAPING AND SITE IMPROVEMENTS					6,000	0.42	0.20%
allow for landscape repairs from scaffold work	1	ls	6,000.00	6,000			
				-			
				-			
BUILDING							
SELECT DEMOLITION					39,034	2.75	1.28%
Remove ceilings and grid	4,921	sf	1.25	6,151			
Remove ceiling tile only-	2,112	sf	1.00	2,112			
Remove existing flooring	11,517	sf	1.20	13,820			
Existing wood base to remain - allow for misc removal	1	ls	1,500.00	1,500			
Misc demolition	1	ls	8,000.00	8,000			
remove wood trim at rm 124	1	ls	150.00	150			
Remove chalk boards in room 212,13	2	ea	800.00	1,600			
Add demolition for new toilet at second floor	1	ls	2,500.00	2,500			
Demo area for new vestibule	1	ls	3,200.00	3,200			
				-			
CONCRETE					12,000	0.85	0.39%
Misc concrete repairs	1	ls	3,500.00	3,500			
Foundation and floor slab for vestibule	1	ls	8,500.00	8,500			
				-			
MASONRY					10,100	0.71	0.33%
close existing crawl space vents	2	ea	1,800.00	3,600			
misc patching	1	ls	1,500.00	1,500			
Misc masonry work at new vestibule	1	ls	5,000.00	5,000			
				-			
MASONRY RESTORATION					309,093	21.79	10.12%
Masonry repair of parapets:							
Back side of west entry gable	1	ea	50,000.00	50,000			
Back side of east entry gable	1	ea	50,000.00	50,000			
East and West corners of southwest gable	1	ea	22,500.00	22,500			
East and West corners of southeast gable	1	ea	22,500.00	22,500			
Backside of south entry canopy	30	lf	500.00	15,000			
north wall eave line east of kitchen door	61	lf	500.00	30,500			
General cleaning and tuckpointing allowance							
clean all brick	12,747	sf	2.50	31,868			
tuckpoint allowance	2,500	sf	25.00	62,500			
brick replacement allowance	150	sf	100.00	15,000			
Limestone cap repair re-seal	185	lf	50.00	9,225			
				-			
				-			
MISCELLANEOUS STEEL					36,960	2.61	1.21%
new stair railings throughout building	1	ls	30,000.00	30,000			
Reconnect steel column to baseplate in mechanical room	1	ls	1,200.00	1,200			
Roof framing for new vestibule	144	sf	40.00	5,760			
				-			
ROUGH CARPENTRY					45,900	3.24	1.50%
Wood floor structure repair General allowance	1	ls	5,000.00	5,000			
Wood floor structure repair allowance rm 129	1	ls	15,000.00	15,000			
Repair wood floor at pantry from water damage	1	ls	5,000.00	5,000			
Misc wood structure repair allowance	1	ls	10,000.00	10,000			
Repair wood stair at mechanical room	1	ls	1,100.00	1,100			
replace FRP panels at kitchen	240	sf	10.00	2,400			
Replace hold down brace	1	ea	200.00	200			
Roof deck repair	1	ls	2,000.00	2,000			
Attic stem wall repair	8	pl	650.00	5,200			
				-			
MILLWORK AND FINISH CARPENTRY					45,000	3.17	1.47%
Allow for wood base replacement at various areas	1	ls	5,000.00	5,000			
New cabinets in room 211	1	ls	6,000.00	6,000			
Replace kitchen cabinets	1	ls	10,000.00	10,000			
new countertop in room 127	1	ls	3,500.00	3,500			
new countertop in room 130	1	ls	4,000.00	4,000			
General millwork allowance	1	ls	15,000.00	15,000			
replace wood mullion and trim in room 212	1	ls	1,500.00	1,500			
				-			

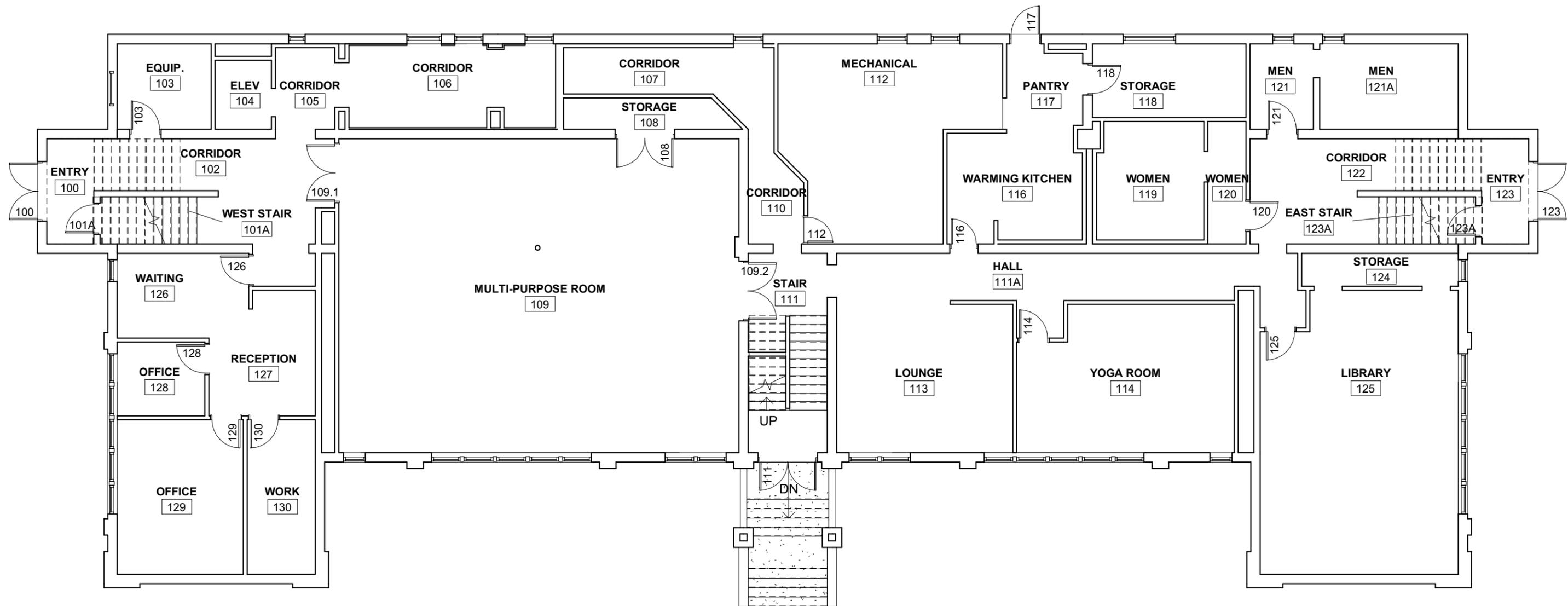
DESCRIPTION	QUANT.	UNIT	UNIT COST	TOTAL COST	CATEGORY COST	COST PER SF	% COST
THERMAL PROTECTION							
Add 8" insulation to attic area	6,794	sf	2.95	20,042	20,042	1.41	0.66%
				-			
				-			
ROOFING							
Roof replacement alternate including gutter replacement	9,472	sf	12.00	113,669	138,882	9.79	4.55%
Flat roof replacement	609	sf	15.00	9,135			
New Gutters	381	lf	18.00	6,858			
Heat trace at gutters	1	ls	4,900.00	4,900			
Roof for new vestibule	144	sf	30.00	4,320			
				-			
				-			
DOORS, FRAMES AND HARDWARE							
New south entry exterior door	1	pair	7,000.00	7,000	154,650	10.90	5.06%
Replace north kitchen door	1	ea	3,000.00	3,000			
Automatic door operator at west entrance	1	ea	5,000.00	5,000			
patch door frame corridor 115	1	ls	150.00	150			
Provide access door to crawl space room 130	1	ls	2,000.00	2,000			
ADA Hardware upgrades allowance	1	ls	15,000.00	15,000			
Replace all interior doors - first floor	25	ea	2,800.00	70,000			
Remove and replace doors at 2nd floor	18	ea	2,800.00	50,400			
Add toilet to second floor - new door	1	ea	2,100.00	2,100			
				-			
				-			
GLASS & GLAZING							
Replace small windows at east and west entries	4	ea	500.00	2,000	42,200	2.98	1.38%
Glass for vestibule	360	sf	70.00	25,200			
Aluminum doors for vestibule	2	pair	7,500.00	15,000			
				-			
				-			
GYPSON DRYWALL & PLASTER							
no new walls planned				-	228,212	16.09	7.47%
allow for minor modifications	1	ls	10,000.00	10,000			
misc plaster and drywall repairs	1	ls	10,000.00	10,000			
Enclose stair at attic	1	ls	5,500.00	5,500			
Repair north cove light fascia, Corridor 102	1	ls	750.00	750			
plaster repair room 114	1	ls	3,000.00	3,000			
plaster repair room 121	1	ls	5,000.00	5,000			
plaster repair room 122, 123	1	ls	10,000.00	10,000			
plaster repair room 125	1	ls	15,000.00	15,000			
plaster repair room 129,130	1	ls	15,000.00	15,000			
plaster and drywall repair room 206	1	ls	15,000.00	15,000			
plaster repair room 210	1	ls	3,000.00	3,000			
plaster repair room 213	1	ls	3,500.00	3,500			
plaster repair room 216	1	ls	2,000.00	2,000			
plaster repair room 218	1	ls	8,000.00	8,000			
Add toilet to second floor	1	ls	2,500.00	2,500			
Modify partitions for accessible routing	1	ls	30,000.00	30,000			
Add insulation to all exterior walls. Furr out, new drywall with insulation, relocate floor base	11,316	sf	7.95	89,962			
				-			
				-			
FLOORING							
Floor prep allowance	11,517	sf	0.40	4,607	81,498	5.75	2.67%
VCT	2,643	sf	4.50	11,894			
Carpet	7,798	sf	6.50	50,687			
Rubber tile	497	sf	9.50	4,722			
Ceramic Tile	0			-			
Sheet Vinyl	579	sf	8.50	4,922			
Add toilet to second floor- new flooring	1	ls	1,500.00	1,500			
Entrance mat at new vestibule	144	sf	22.00	3,168			
				-			
				-			
CEILINGS							
New ceilings and grid	4,921	sf	5.50	27,066	34,744	2.45	1.14%
New ceiling tile only	98	sf	3.50	343			
Replace ceiling tile as needed assume 50%	2,014	sf	3.50	7,047			
Add toilet to second floor	64	sf	4.50	288			
				-			
				-			
PAINTING							
paint entire facility	14,184	sf	3.25	46,098	56,448	3.98	1.85%
Prep work	1	ls	10,000.00	10,000			
Add toilet to second floor	1	ls	350.00	350			

DESCRIPTION	QUANT.	UNIT	UNIT COST	TOTAL COST	CATEGORY COST	COST PER SF	% COST
SPECIALTIES					42,220	2.98	1.38%
toilet accessories	1	ls	5,000.00	5,000			
replace attic louver	1	ls	4,500.00	4,500			
provide recessed fire extinguishers	6	ea	500.00	3,000			
Replace tack surface at room 125	1	ls	800.00	800			
ADA Signage allowance	1	ls	12,000.00	12,000			
Add toilet to second floor- toilet accessories	1	ls	1,800.00	1,800			
Window treatment at south, east and west windows	63	ea	240.00	15,120			
EQUIPMENT					40,000	2.82	1.31%
Kitchen Equipment upgrade	1	ls	40,000.00	40,000			
CONVEYING SYSTEMS					-	0.00	0.00%
no work on elevators				-			
FIRE PROTECTION - SEE ALTERNATE					-	0.00	0.00%
PLUMBING					123,500	8.71	4.04%
Backflow preventer	2	ea	4,000.00	8,000			
Water Heater work	1	ls	3,000.00	3,000			
Hot water return piping system for the water heater	1	ls	15,000.00	15,000			
Replace all galvanized plumbing piping	1	ls	20,000.00	20,000			
Add pipe insulation	1	ls	6,000.00	6,000			
replace toilet fixtures	20	ea	1,000.00	20,000			
cutting and patching	1	ls	20,000.00	20,000			
Misc plumbing work	1	ls	5,000.00	5,000			
Replace non compliant drinking fountains	2	ea	3,500.00	7,000			
Add toilet to second floor	3	fixture:	4,500.00	13,500			
Add roof drain to new vestibule	1	ls	6,000.00	6,000			
HVAC					490,876	34.61	16.07%
Mechanical system - for all work in scope	14,184	sf	24.00	340,416			
Remove existing steam piping							
insulate the mechanical room piping							
Replace heat pumps	8	ea					
Replace Boiler B-1	1	ls					
add 8 new heat pumps including piping	8	ea					
DOAS unit							
New Kitchen hood							
replace exhaust fans	4	ea					
fire wrap kitchen hood exhaust	1	ls					
Upgrade temperature controls	14,184	sf	5.00	70,920			
Relocate existing radiators at exterior wall furring	40	pl	1,200.00	48,000			
cutting and patching	1	ls	25,000.00	25,000			
Add toilet to second floor	1	ls	1,500.00	1,500			
Add vestibule	1	ls	5,040.00	5,040			
ELECTRICAL					113,420	8.00	3.71%
Electrical							
Circle R Electric - all work per scope	1	ls	65,000.00	65,000			
relocate existing panels							
provide new panels							
new fire alarm system			1.75				
New emergency lighting							
Upgrade to all LED fixtures							
Cutting and patching	1	ls	8,000.00	8,000			
Misc ADA upgrades, light switches	1	ls	10,000.00	10,000			
Extend all outlets and switches on exterior walls	78	pl	350.00	27,300			
Add toilet to second floor	1	ls	960.00	960			
Add vestibule	1	ls	2,160.00	2,160			
LOW VOLTAGE ELECTRICAL SYSTEMS					-	0.00	0.00%
none included							

DESCRIPTION	QUANT. UNIT	UNIT COST	TOTAL COST	CATEGORY COST	COST PER SF	% COST
SUBTOTAL			2,315,133	2,315,133	\$163.22	75.78%
GENERAL LIABILITY INSURANCE			1.00%	23,151	1.63	0.76%
BUILDERS RISK INSURANCE			0.10%	2,315	0.16	0.08%
SUBGUARD INSURANCE				0	0.00	0.00%
SALES TAX				0	0.00	0.00%
SUBTOTAL				2,340,600	\$165.02	76.62%
MATERIAL AND LABOR ESCALATION			3.00%	69,454	4.90	2.27%
CONTRACTOR CONTINGENCY			10.00%	231,513	16.32	7.58%
DESIGN CONTINGENCY			10.00%	231,513	16.32	7.58%
SUBTOTAL				2,873,080	\$202.56	94.05%
FEE			4.00%	114,923	8.10	3.76%
PRECONSTRUCTION SERVICES			0.50%	14,365	1.01	0.47%
				0	0.00	0.00%
SUBTOTAL				3,002,369	\$211.67	98.28%
PERMIT			0.75%	22,518	1.59	0.74%
PERFORMANCE BOND			1.00%	30,024	2.12	0.98%
				0	0.00	0.00%
TOTAL				\$3,054,911	\$215.38	100.00%

ALTERNATE

Provide Fire protection system new service	1 ls	35,000.00	35,000			
Sprinkler system cutting and patching	14,184 sf	4.50	63,828			
Add vestibule	1 ls	25,000.00	25,000			
markup and contingency	144 sf	10.00	1,440			
	15 %		18750			
TOTAL						\$ 144,018.00



1 FIRST LEVEL FLOOR PLAN
3/32" = 1'-0"

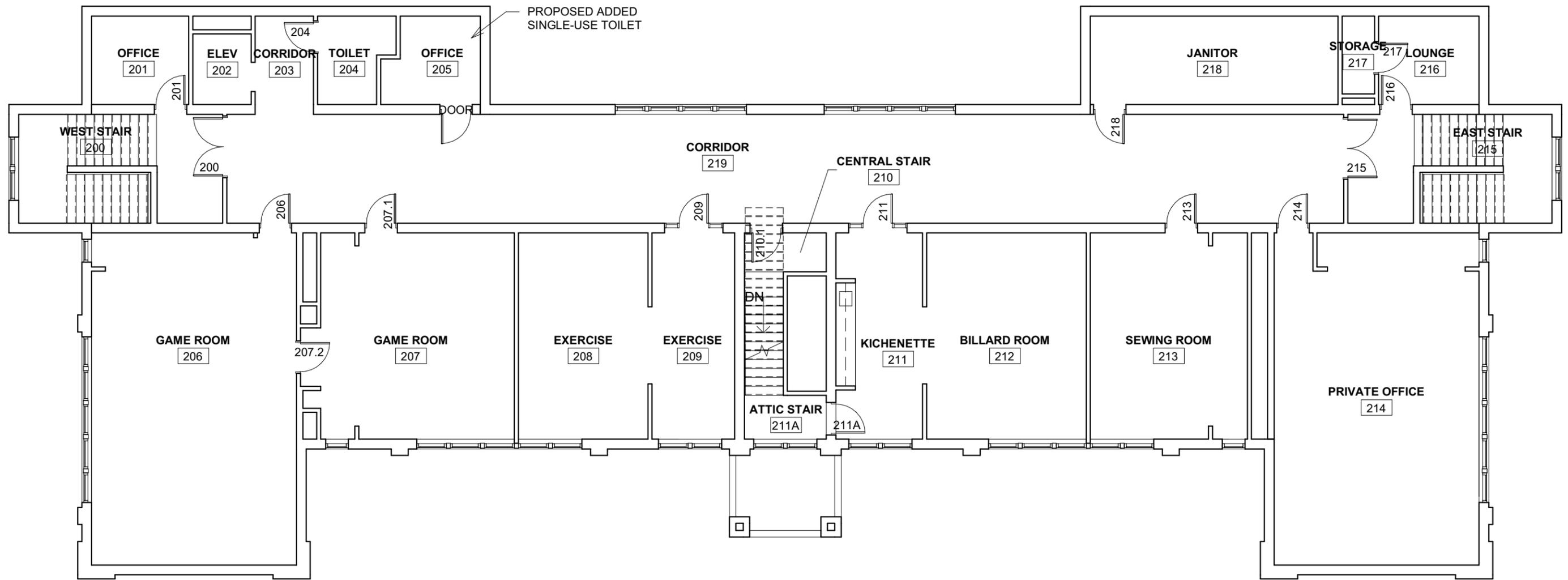
FIRST FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
100	ENTRY	56 SF	VCT
101A	WEST STAIR	63 SF	VCT
102	CORRIDOR	235 SF	VCT
103	EQUIP.	91 SF	CLAY TILE
104	ELEV	45 SF	VCT
105	CORRIDOR	61 SF	VCT
106	CORRIDOR	193 SF	CARPET
107	CORRIDOR	128 SF	CARPET
108	STORAGE	58 SF	CARPET
109	MULTI-PURPOSE ROOM	1418 SF	VCT
110	CORRIDOR	61 SF	CARPET

FIRST FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
111	STAIR	176 SF	RUBBER TREADS
111A	HALL	281 SF	VCT
112	MECHANICAL	406 SF	CONCRETE
113	LOUNGE	298 SF	VCT
114	YOGA ROOM	343 SF	CARPET
116	WARMING KITCHEN	164 SF	SHEET VINYL
117	PANTRY	72 SF	SHEET VINYL
118	STORAGE	128 SF	SHEET VINYL
119	WOMEN	142 SF	CERAMIC TILE
120	WOMEN	54 SF	VCT
121	MEN	62 SF	VCT

FIRST FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
121A	MEN	135 SF	VCT
122	CORRIDOR	199 SF	VCT
123	ENTRY	58 SF	VCT
123A	EAST STAIR	63 SF	RUBBER TREADS
124	STORAGE	59 SF	CARPET
125	LIBRARY	613 SF	CARPET
126	WAITING	119 SF	CARPET
127	RECEPTION	135 SF	CARPET
128	OFFICE	73 SF	CARPET
129	OFFICE	220 SF	CARPET
130	WORK	119 SF	CARPET

6329 SF

BANTA CENTER VALPARAISO, INDIANA



1 SECOND FLOOR PLAN
3/32" = 1'-0"

SECOND FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
200	WEST STAIR	225 SF	CARPET
201	OFFICE	91 SF	CARPET
202	ELEV	44 SF	VCT
203	CORRIDOR	58 SF	CARPET
204	TOILET	63 SF	CERAMIC TILE
205	OFFICE	84 SF	CARPET
206	GAME ROOM	718 SF	CARPET
207	GAME ROOM	436 SF	CARPET

SECOND FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
208	EXERCISE	284 SF	CARPET
209	EXERCISE	182 SF	CARPET
210	CENTRAL STAIR	40 SF	RUBBER TREADS
211	KICHENETTE	189 SF	VCT
211A	ATTIC STAIR	82 SF	UNFINISHED
212	BILLARD ROOM	349 SF	CARPET
213	SEWING ROOM	341 SF	CARPET
214	PRIVATE OFFICE	716 SF	CARPET

SECOND FLOOR ROOMS			
NO	ROOM NAME	AREA	FLOOR FINISH
215	EAST STAIR	225 SF	CARPET
216	LOUNGE	94 SF	CARPET
217	STORAGE	27 SF	CARPET
218	JANITOR	232 SF	UNFINISHED
219	CORRIDOR	1286 SF	CARPET
		5765 SF	

BANTA CENTER VALPARAISO, INDIANA