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FINAL REPORT – 13TH OCTOBER, 2017

CONWAY RECREATION CENTER
FACILITY NEEDS AND IMPROVEMENT STUDY

member of the American Institute of Architects
member of the US Green Building Council

alba architects · a limited liability partnership · stuart j anderson & philip m bennett

PREFACE

In mid-2017, the Town of Conway retained the services of Alba Architects and their engineering team to conduct a Facility Needs and Improvement Study with respect to the Town's Recreation Center and Programs.

The scope of works identified undertook a three-task approach as outlined below:

Task 1: Demand, Needs & Spatial Analysis.

In conjunction with the Conway Recreation Planning Committee establish the following:

- Identify, quantify and analyze the existing programs currently offered at the Recreation Center.
- Identify and quantify the existing personnel and equipment of the Recreation Department.
- Identify, and where possible quantify, the community desires and demands of the Recreation Center.
- Identify long term future community needs, programs and services (25 years +/-).
- Quantify the spatial needs for future recreation programs and services.

Task 2: Preliminary Existing Building and Site Conditions Assessment with Spatial Analysis.

With respect to the outcomes of Task 1, provide preliminary assessment of the existing Recreation Center to establish the following:

- Initial Site Assessment to determine the adequacy of the Recreation Center site for current and future use.
- Initial Spatial Analysis to determine the adequacy of the existing Recreation Center building for current use, as well as long term future community needs.
- Preliminary Assessment of the existing buildings Structural condition.
- Preliminary Assessment of the existing buildings Mechanical, Electrical, Plumbing and Fire Suppression Systems.
- Preliminary Assessment of the existing buildings thermal envelope, accessibility, and fabric conditions.
- Develop rough conceptual massing options, one for each alternative, for both renovation and new construction, to allow for estimate of probable costs under Task 3.

Task 3: Estimate of Probable Costs

With respect to the outcomes of Task 1 and Task 2, undertake a preliminary costs analysis to evaluate the comparative costs to either renovate the existing Recreation Center for future needs, or provide a new facility for the same future needs.

The team of professionals and their respective discipline include:

- Architecture & Team Leader: **ALBA ARCHITECTS LLP,** North Woodstock, NH
- Civil and Structural Engineering: **HEB ENGINEERS, INC.,** North Conway, NH
- Mechanical, Electrical, Plumbing & Fire Protection Engineering: **YEATON ASSOCIATES, INC.,** Littleton, NH
- Cost Estimating: **COBB HILL CONSTRUCTION,** Concord, NH

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1.1 EXISTING & PROJECTED POPULATION DATA

According to the New Hampshire Economic & Labor Market Information Bureau (ELMI), and the 2015 US Census Bureau data, the Town of Conway has a current total population of 10,023 (5,019 male and 5,004 female).

Further defining that data into population by age group as follows:

Age Group	Population	Percentage of Population
5 Years & Under	467	4.6 %
5 Years to 19 Years	1,738	17.3 %
20 Years to 64 Years	5,939	59.4 %
65 Years and Over	1,879	18.7%

Specifically addressing the 5 years to 19 years age group, the 1,738 total would suggest an average of 116 persons per each age year. The Conway Recreation Center currently focus on youth age groups of 6 – 14. Based on the census data the Town of Conway would therefore have 1,044 residents eligible in the 6 – 14 age grouping.

Available national statistics suggest that approximately 25 - 30% of an eligible youth population participate in municipal recreation programs, therefore 261 - 313 for Conway.

Actual Recreation Department Summer Program enrollment data demonstrates an eight-year average of 233, with consistently 242+ over the last 4 years (slightly down from the national statistics). The actual daily attendance eight-year average is 128 attendees per day, with 144+ over the last four years, matching national trends of increased participation.

Actual Recreation Department Winter Program enrollment data demonstrates a seven-year average of 140 attendees.

PROJECTED DATA

The New Hampshire Office of Energy and Planning (OEP) project an increase in population over the next 23 years (through 2040) for Carroll County of 4.6%, less than the NH average of 7.7%, and considerably less than the National average of 18%.

The OEP further defines their projected changes by age group for Carroll County as follows:

Age Group	Percentage Change by 2040
5 Years & Under	-17 %
5 Years to 19 Years	-14 %
20 Years to 64 Years	-18 %
65 Years and Over	+78 %

These percentage changes would suggest a potential reduction in the youth age groups of 6 – 14, however if the participation percentage continues to trend upwards this may see little to no change. The substantial increase in retiree / senior population should be given due consideration and the effect on community needs for recreation spaces / activities.

1.2 EXISTING RECREATION PROGRAM DATA

For reference, the following programs / functions are currently offered / coordinated from the Conway Recreation Center, in addition to the facility functioning as the administrative and storage center for the Recreation Department:

YEAR ROUND (SEPTEMBER – JUNE):

- Teen Center (80 – 90 enrollment, 25 daily average)
- Adult Pickle Ball (2 Days)
- Adult Drop-In Basketball (3 Days)
- Adult Ballroom Dancing (1 Day)
- Senior Trips
- Senior Bingo
- Seasonal Special Events
- Northern Human Services (Gym use when available)
- Playground

FALL PROGRAMS:

- Bowling (Grades K-2)
- Co-Ed Flag Football (Grades 2-4)
- Co-Ed Soccer (Grades 3-6)
- Girls Field Hockey (Grades 3-6)
- Adult Flag Football
- Adult Co-Ed Softball
- Adult Co-Ed Kickball

WINTER PROGRAMS:

- Youth Basketball (13-14 Teams)
- Mini Basketball

SPRING PROGRAMS:

- Girls Softball (3 Teams)
- Co-Ed T-Ball (8 Teams)
- Rookie Softball (2 Teams)
- Little League (use of fields daily)

JULY – AUGUST:

- Summer Camp (250 +/- registrants, 150 +/- daily attendance)
- Swim Lessons (coordination only, swimming elsewhere)

1.3 EXISTING DEMANDS AND ANTICIPATED CHANGES

Following first-hand observations, and multiple discussions with the existing Recreation Department Staff, it became readily obvious that the gymnasium is an area of the current facility that sees intense use and has the highest demand on time.

To better understand that need and amount of gymnasium space desired, the following is offered as a base line analysis of current conditions.

EXISTING GYMNASIUM DEMAND ANALYSIS – PEEK

Assuming winter months create the highest demand on interior gymnasium space. Initial analysis suggests a possible **38.5 hours** of time per week available (3:30pm - 8:30pm, Mon-Thur) + (3:30pm - 9:30pm, Fri) + (9:00am - 9:30pm, Sat).

The optimal desired needs for current programs is as follows:

- Youth Basketball - 10 teams needing 1-hour practice and 1 hour game time per week = 20 hours.
- Two Travel Basketball teams needing 2-hour practice twice per week = 8 hours.
- Two Travel Basketball teams needing 1.5 hour game once or twice/wk= 6 hours.
- Biddy Ball - 2 teams, 2 hours each = 4 hours.
- Teen Center access to gym (6:30pm – 8:30pm) x2 days + (6:30pm - 9:30pm) x2 = 10 hours.

Total desired gymnasium time: **48 hours.**

As can be readily seen the demand of gymnasium time already exceeds the available time, so existing programs are compromised by the lack of available time. Assuming the next 25 years will increase the demand for available gymnasium time, due consideration should be given to the needs this may introduce.

1.4 COMMUNITY SURVEY

The Conway Parks and Recreation Department undertook a community wide survey to gain a further understanding of the needs and programs that the community desired.

I summary, of those that responded to the survey, underserved community needs included after school programs, adult sports and activities, as well as senior sports and activities. Furthermore, the survey clearly indicated strong support for the expansion of programs with 76% percent of respondents agreeing that increased programs would be justification for expanded facilities.

The full results of the survey can be found in Appendix I.

1.5 ANTICIPATED BUILDING PROGRAM

Understanding and applying all the information previously gathered, Alba Architects and their team have established a building program that represents the current and future needs of the Conway Recreation Center.

Note, architectural programming is the research and decision-making process that identifies the scope of work to be designed into any given building. It does not represent any particular building style of configuration, but does provide a benchmark from which conceptual design can be undertaken.

In order to fully address the ideal programmatic and spatial relationships, a single-story structure would be beneficial as it would allow for the best scenarios of supervision and security for youth programs. Furthermore, it would address and simplify emergency egress when dealing with a building largely occupied by children, and eliminate the need for an elevator.

Full time-General Requirements	***size- sq.ft.***	***level / location***	***comments***
Main Office	250	main level	Within view of main entry
Director's Office	150	not critical	
Assistant Director's Office	150	not critical	
Town Office (Space)	100	not critical	
Conference Space	120	not critical	Could be in larger / dividable space
Main Entry Foyer/Waiting	400	main level	Sufficient for waiting, dropping off
Bathrooms	300	main level	Near entry or easily accessible from gym
Equipment/Rec Storage	500	not critical	Storage for program spaces
Equipment/Rec Storage	600	near gymnasium	Gym and sports equipment
Male changing/locker/toilet	200	near gymnasium	Could include 'cubby' space / shower
Female changing/locker/toilet	200	near gymnasium	Could include 'cubby' space / shower
Laundry	100	near storage	
Mechanical	400	not critical	likely several small spaces
Staff Room	120		close proximity to dining / function
Elevator or Ramp	TBD		
Sub-Total	**3,790**		

Program Spaces	***Size- sq.ft.***	***level / location***	***comments***
Multi-purpose room (x5)	2,000	main level	Includes eating, arts, lounge, games
Gymnasium space	7,500	main level	Includes sports and games w/ seating, can be subdivided
Kitchen	150	not critical	Kitchen area only, no dining
Kitchen Storage	75	near kitchen	
'Cubby'/Users storage	150	In view of office(s)	Built-in cubbies in space off entry
Sub-Total	**9,875**		

Projected Building Size Needs	***Size- sq.ft.***		
Sub-Total (General + Program)	13,665		
Circulation (25%)	3,416		does not include elevator, ramp or stairs
Total	**17,081**		

2.1 EXISTING RECREATION CENTER DESCRIPTION

The Town of Conway currently operates the Conway Recreation Center from a facility and grounds located at 1808 East Main Street, Center Conway, New Hampshire.

The site is approximately 4.3 acres, comprised of buildings, parking, sports fields and playground.

The building facility is comprised of a two-story historic school building (circa. 1900), and an attached single-story gymnasium constructed in 1977. The 1977 gymnasium addition floor elevation is approximately half way between the lower and main level floor elevation of the historic school building, therefore creating a split-level scenario, effectively giving the facility three different levels of usable space.

In total, the 11,900 square foot (gross) complex primarily provides programs aimed at children ages 5 through 14. These programs include sports leagues, a teen center, and a summer camp, with some adult programs also offered.

The school building is approximately 7,000 square feet (gross) (3,500 square feet per floor), and it currently utilized on the lower level for art room, offices, and associated ancillary spaces such as storage and mechanical. The main level is primarily utilized for break out rooms, teen center, and kitchen.

The 1977 gymnasium addition is approximately 4,900 square feet (gross), orientated approximately 45 degrees from the original school building. The majority of space is a single volume gym with 'lean-to' structure of offices, bathrooms, and mechanical. The 1977 addition also contains a 'connector' space joining the original school with the gym. This connector space is currently utilized as the primary entry point for the complete facility.

An existing condition site plan can be found on the following pages. In addition, existing condition floor plans can be seen under Section 2.3.

C1.01
SHEET 1 OF 5

2017-067
Existing Site Layout
Conway Recreation Center

40 0 40 80 160 ft
8 0 20 40 m
1 inch = 40 feet
(1 : 480)

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No.	Revision	DATE	BY

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SURVEYED BY	–
DESIGNED BY	MKT
DRAWN BY	MKT
CHECKED BY	JMM
FIELD BOOK	–
SCALE	1"=40'
DATE	10/11/2017

Existing Site Layout
for the
Conway Recreation Center
located in
Conway, New Hampshire
prepared for
Alba Architects LLP

PRELIMINARY
NOT FOR
CONSTRUCTION

2017-067
C1.01
SHEET 1 OF 5

2.2 EXISTING SITE, ARCHITECTURAL AND SYSTEMS CONDITIONS ASSESSMENT

EXISTING SITE

WATER SYSTEM

The Conway Recreation Center has a drilled well located on the northeast of the original Pine Tree School Building. Limited information is available on the existing system. It is known that the systems have shown sign of failure, to the extent that the Recreation Department has stopped utilizing the on-site water for drinking water due to lead and copper contamination, and infrequently uses the bathrooms due to the lack of available water.

Source of water quality issues have not been determined and requires further study.

SEPTIC SYSTEM

The Conway Recreation Center has an on-site septic system. This system is located to the northwest of the gym addition building in the general vicinity of the tent location and the playground.

The current system was approved by NHDES for installation in 1977 and constructed sometime in 1977 or 1978. The system consists of a 7-foot wide, 7-foot high, 14-foor long (7'Wx7'Hx14'L) concrete septic tank and a 50-foot by 50-foot (50'x50') leach field. The leach field is a "pipe in stone" system with a 4-inch perforated pipe in a 12-inch deep stone envelope.

It is not apparent if the system meets current NHDES design standards, as many of the construction details, including material specifications for the stone and the pipe were not included on design drawings and calculations for estimated flow rates to the system are unavailable. Additionally, given that the system is approximately 40 years old, it has exceeded the typical useful life (30 years) for septic systems.

SITE DRAINAGE

There is limited evidence of on-site stormwater management for the facility and parking areas. Stormwater generally sheet flows to low spots in the parking lot and puddles until evaporation or follows site grading to the north off-site. There is a drywell catch basin located to the west of the gym building managing stormwater exiting the athletic field between the field and the building.

The general topography of the site slopes form south to north toward the Saco River. The lowest areas of the facility are in the vicinity of the playground/tent area.

PARKING

Parking is available on the east side of the athletic field and building as well and to the north of the building.

The parking along the entry drive to the east of the fields and building includes 27 perpendicular parking spaces against the field fence and the building as well as 16 parallel spaces along the east side of the drive. The perpendicular parking spaces are very undersized at 8.5 feet wide by 13.5 feet long (8.5'Wx13.5'L) as compared to typical parking space dimensions of 9 feet wide by 18 feet long (9'Wx18'L). These reduced parking space sizes create difficulty for vehicles to safely maneuver into spaces without colliding with other vehicles. The parallel spaces are generally adequately sized.

The parking area in the rear consists of 13 parking spaces that are similarly sized to the ones located adjacent to the athletic field and are within a paved parking lot with adequate drive aisle space. The lot is not fully striped throughout the paved area due to need for vehicle movements. Additional parking spaces could be added if needed in the paved lot. To the north of the paved lot is an approximate 9,500-square foot gravel lot that is also used for parking and storage.

The total striped parking on-site includes 55 spaces. During times of high volume use (voting), this parking space number is inadequate. Parking extends to the gravel lot to the north of the rear parking lot as well as into East Main Street (NH Route 113, US Route 302) and onto the adjacent property. Historic use would indicate that 55 spaces and the available 9,500-square foot gravel lot is inadequate for high demand events at the facility.

A full site assessment can be found in Appendix III.

EXISTING BUILDING FABRIC

EXTERIOR — ORIGINAL SCHOOL BLOCK

The original elementary school building consists of a 'stick' framed structure atop a concrete/block foundation with a stick framed hip roof.

Framed exterior walls are approximately 8" overall thickness, with 1 1/2" exterior build-out (vinyl siding and some substrate) on true 2x6 stud framing and 1/2" interior finish. Wall insulation cannot be confirmed at this time, but is anticipated to be 6" of loose fill cellulose/mineral fiber. Vinyl siding appears to be in reasonable condition with no apparent failures.

These framed walls sit on 30" of exposed painted concrete walls, which appear to be in reasonable shape though the painting requires treatment. Sliding windows within this wall are very close to grade and would likely experience water ingress should water levels rise more than a couple inches.

The windows are double-glazed/double-hung vinyl windows, and appear to be relatively recent and in reasonable condition.

Trims are vinyl for wall and roof, with the exception of the original main entry. The trims at this entry are in very rough shape and will likely require replacement in any proposed upgrades.

The main door is a six-panel painted wood door showing signs of wear, but still a viable component. The rear exit door is a 3-panel vinyl/glazed door, and there are two flat-panel painted exit doors serving the lower level, both of which are still viable, but with limited usefulness left in them.

This block consists of a hip roof with a gable roof coming off both the street and rear elevations, and two smaller bulk-head roofs for the lower level exits. There are no significant signs of failure in the roofing, but the shingles are showing signs of curling and will require replacement, likely within a 2-3 year period, if not sooner.

EXTERIOR **LINK ADDITION**

The single-story link to the gymnasium appears to also be a stick framed structure, but on frost walls and concrete slab on grade. The condition of the components appears to be similar to that of the original school building, with no apparent signs of impending failure, but requiring continued maintenance and eventual replacement, particularly the roof finish.

EXTERIOR **GYMNASIUM ADDITION**

The gymnasium structure is a split-face concrete block wall finish on concrete masonry unit wall, about 18"-20" overall thickness, built off concrete frost walls and concrete slab on grade. The roof structure is a system of 30" deep metal roof trusses and metal roof deck which is effectively flat. The insulation appears to be above the metal deck (which may have a pitch built into it) and the roof drains to two interior rainwater pipes. Observation of the roof finish was not possible at the time of inspection.

Attached to the gymnasium is the office/toilet/mechanical block, also constructed of split face concrete block exterior and CMU interior walls. The roof is a shed pitch roof (presumably stick framed) with asphalt shingles, also with limited life.

The gymnasium and the mechanical room both have 6' wide flat panel double-leaf painted steel access/exit doors, both requiring refinishing. The shed block has one window in the office and there are no windows in the gymnasium.

INTERIOR **ORIGINAL SCHOOL BLOCK**

The interior of the original school house section, upper level, consists primarily of sheetrock (or plaster) on the wood framed walls. The double-hung windows stop just below the ceiling with enough room for the trim. Ceiling heights are typically at 11'-10" and ceilings are a panelized system with surface mount joint trims. It is anticipated that the ceiling panels and trims are either wood sheathing or pressed composite board. Confirmation was not possible at time of inspection.

Additional items of note include:

- Some walls retain original chalk boards.
- Floors are wood strip flooring exposed in most areas, and under carpet in others.
- Bathroom floors are sheet vinyl.

- Trims to windows appear to be original wood trims.
- Doors are primarily six panel wood doors, most with clear sealer, some are painted.
- Lighting is either suspended florescent strips or a surface mount version of the same, to classrooms and kitchen area.
- Heating is via forced hot water on wall mounted radiators. This appears to be a later upgrade, with the original furnace having been removed (heating ducts still intact).
- The four 'classroom' spaces contain mini-splits for air conditioning.
- The lower level of the original school house section is primarily painted concrete or concrete block walls with some areas of sheetrock/plaster on stick framing. Ceilings are 7'-1" high in most areas and are primarily sheetrock/plaster painted, with a few rooms utilizing a composite sheet/plywood ceiling.
- Flooring is a mixture of sealed concrete slab, composite floor tiles, and some areas of carpeting.
- There is a mixture of metal and wood doors, most are flat panel with a few six panel, all are painted.
- Lighting is a mixture of surface mount incandescent, strip florescent and florescent troffers also surface mounted.
- Heating is forced hot water radiators mounted on the walls. A/C is provided in the Directors Office only.

INTERIOR **LINK ADDITION**

Typically, interior wall finish to exterior walls / load bearing walls is exposed painted concrete block or self-colored concrete block. Floor finish is a composite floor tile. Ceiling finish is painted sheetrock on underside of roof structure.

Doors are painted steel doors. Windows are clear sealed double-glazed wood casement / awning / picture windows.

Insulation appears to be fiberglass batts in ceiling (where exposed) and is assumed to be same in wall and areas of ceiling not exposed.

Lighting is a combination of surface mounted florescent and incandescent track lights. Heating is hot-water/fan assisted box heaters built into the walls. No A/C is present.

INTERIOR **GYMNASIUM ADDITION AND TOILET BLOCK**

Interior wall finish is primarily self-colored concrete block walls, with some areas of sheetrock. Ceilings are sheetrock where lowered, and exposed structure/roof sheathing at 'cathedral' areas. Floors are primarily composite floor tile and some areas of painted/sealed concrete.

Lighting in gymnasium is suspended spot fixtures. In toilets lighting is florescent troffers installed flush with sheetrock. Other areas have incandescent surface mount fixtures, and the office has suspended florescent box/troffers.

Heating throughout is forced hot air, with exposed high level spiral duct in the gymnasium. No A/C is present.

INTERIOR ATTIC — ORIGINAL SCHOOL BLOCK

The attic space is unfinished, with exposed 2x8 stick framed roof structure and 2x8 ceiling structure.

Attic insulation is generally 8" of loose fill cellulose/mineral fiber and some areas of fiberglass batts. Quality of installation has been compromised in many areas significantly reducing effective performance.

No apparent water ingress issues or impending structural failures.

STRUCTURE

Generally, the buildings structural components are in good condition. Based on field observations the structural systems do not meet the current NH Building Code for floor and roof / snow loading, however as there is no proposed change in use, there is no requirement to reinforce the structure to meet current codes. Continued observation for areas of excessive deflection or movement is recommended.

Should a proposal go forward for re-use of the existing facilities, further investigation would have to go into the school upper level floor structure to meet intended uses.

To limit cost associated with potential floor structure upgrades, limitation to occupancy numbers could be applied.

A full structural assessment can be found in Appendix IV.

SYSTEMS

MECHANICAL SYSTEMS — HEATING

The current heating system for the school building appears to be sized correctly, though control is somewhat deficient. The boiler has a hole in it which needs to be repaired or replaced. Boiler ventilation is inadequate. Piping, connections and ancillary components appear good. Piping insulation is insufficient, and baseboard heating elements have deteriorated substantially and would need significant repair or replacement.

The current heating system for the gymnasium addition and offices is also sized appropriately, but again control is deficient. The boiler is in reasonable condition and is appropriately ventilated. Piping, connections and ancillary components appear good, with exception to the gym, where diffusers have been destroyed adversely effecting air flow/distribution. Piping insulation is insufficient and causes rooms at the end of a line to be poorly heated which is exacerbated by improper control of water temperatures and pressure.

Although both school and gymnasium systems can be made to function properly, it is felt they are nearing their end of life time frame.

MECHANICAL SYSTEMS — VENTILATION

The only ventilation provided in the school is extract fans in the three upper level bathrooms. Degree of effectiveness is unknown, but appears very low. No fresh air intake is provided apart from natural replacement air through building envelope penetrations.

The gymnasium mixes fresh air into the return air from in the heating system, though the dampers are adjusted for minimal intake and the mixing damper motor appears to be inoperable. Due to the fact that the exhaust fan in the gymnasium is not functioning there is effectively no venting of the gym during either the heating or cooling seasons. Gym bathrooms have a common inline exhaust fan which was not working at the time of inspection. Return air would rely on air supply from the heating ducting, which would not function when the gym is not calling for heat.

MECHANICAL SYSTEMS — AIR CONDITIONING

The only spaces having air conditioning are the four upper rooms of the school, director's office, assistant director's office, main office and entry lobby.

The four school upper level spaces utilize mini-split systems which are approaching their end of life time frame. They also utililze R-22 refrigerant which will soon become unavailable. Window mounted units are utilized in other areas, which are effective though inefficient.

A full Mechanical assessment can be found in Appendix V.

ELECTRICAL SYSTEMS

The building is served overhead to a weather head adjacent to the upper floor window, which is not code compliant. Otherwise, the electrical service appears to be in compliance with current code.

Lighting is generally adequate but will require continued maintenance (lamp and ballast replacement). Fixtures in the gymnasium should be raised to the underside of the roof trusses at the minimum. Most lighting is energy efficient though there is room for improvement.

Power in many spaces is limited and would benefit from additional outlets, though this is not a code issue. It does appear to be a practical issue, as it was reported that some circuits get overloaded and trip the circuit breaker.

Wiring appears to be code compliant, where observable, with exception to some wiring in the attic space.

A full Electrical assessment can be found in Appendix V.

PLUMBING SYSTEMS

The well yield, as measured in sustained gallons per minute, is not sufficient for the current facility usage, according to staff. As a result, summertime outdoor activities which use water are highly restricted. The

resulting depletion can become evident in the failure of toilets to refill, raising health concerns. Even without outside usage, during a summer 8-week program, 100 to 150 children occupy the premises daily, using indoor and outdoor spaces. Six (6) Porta potties, pumped 2 times per week, are rented by the town. In order to serve the existing usage, a cistern and booster pump is required, and a 2nd well may be required.

There are several water quality issues at the building. Dissolved iron is extremely apparent in badly stained toilets and other fixtures. Staff report that sediments and iron deposits result in toilet flush valve failure (sticking and running). These failures have resulted in frequent and costly calls to plumber for repair. Continual toilet running has led to the well running dry more quickly than it would otherwise. There is also toxic metal content in the water, the cause of which should be further investigated.

A full Plumbing assessment can be found in Appendix V.

LIFE SAFETY SYSTEMS

The emergency lighting is provided by individual emergency batter lighting units. Several were tested during the site inspection and were found to be in working order. The facility appears to have adequate interior emergency lighting to satisfy current codes. The exterior emergency lighting appears not to be compliant with current codes.

There is no fire suppression within the building, which would not be permitted for new buildings of these occupancy groups. Notwithstanding the preferred option of the town to meet present and future goals of the recreation department and center, serious consideration should be given to the introduction of a building-wide sprinkler system should the facility continue to be used as a recreation center.

Heat and/or smoke detectors are located in most spaces, as are pull stations. The facility is served by an addressable fire alarm system which appears to have been added at the time the addition was constructed. The overall fire alarm system detection and notification appear to satisfy current code requirements.

ACCESSIBILITY

The original school house section and the gymnasium/link addition both have accessible entrances, though access to other levels is not available without exiting the building. No access is available to the school house lower level. Accessibility to the whole of the building, preferably without exiting and re-entering, should be a goal for any future facility upgrade or replacement.

Bathrooms in the gymnasium/link addition provide ADA compliant toilet facilities, however, toilets in the upper level of the original school house do not, and at present are not large enough to be made to do so. Future alteration or replacement should provide ADA compliant bathroom facilities to all levels, particularly if interior access to all levels is not available.

2.2 SPATIAL ANALYSIS

The existing building has a footprint of approximately 8,780 gross square feet. Within that footprint, the gross interior space (usable space) is approximately 10,465 square feet, split across the levels as follows:

- Original School Lower Level: 2,993 square feet
- Original School Upper Level: 2,913 square feet
- Link / Gymnasium / Toilet Block Addition: 4,559 square feet

BUILDING OCCUPANCY

Building occupancy classifications refer to categorizing structures based on their usage and are primarily used for building and fire code enforcement. The allowable number of occupants within any given building is a calculation based on the area under consideration and the occupant load factor for that type of use. The following is a guide based on current conditions.

The current recreation center would have a mixed occupancy type of Assembly-3 (A-3), and Assembly-4 (A-4).

It should be note that the occupancy factors noted below are based on the assumption that a building of occupancy type A3 and A4 has an automatic fire suppression system. Revised, higher occupancy factors based on there being no fire suppression system would be the determination of the Authority Having Jurisdiction (AHJ).

PROGRAM SPACES AND PERMITTED OCCUPANCIES (based on load factor only, for egress)

(note: These are not intended to be practical or appropriate occupancies for rec program needs. They are only intended to determine what occupancy number would be allowed by code, should the building have an automatic fire suppression system).

ORIGINAL SCHOOL – MAIN LEVEL

space	Area (sq.ft.)	Occupancy Factor	Occupancy Load
Lounge	559	15	37
Kitchen	572	15	38
Durkee Bingo	572	15	38
Games Room	476	15	31
Office	85	100	1
		calculated occupancy main level	**145 occupants**

ORIGINAL SCHOOL – LOWER LEVEL

space	Area (sq.ft.)	Occupancy Factor	Occupancy Load
Arts	559	100	37
Office	261	100	3
Office	89	100	1
		calculated occupancy lower level	**41 occupants**

GYMNASIUM ADDITION			
space	**Area (sq.ft.)**	**Occupancy Factor**	**Occupancy Load**
Office	235	100	3
Gym	3,015	15	430
Office	170	15	2
		calculated occupancy gym	**435 occupants**

Calculated Maximum Occupancy = 621 occupants

(note: this figure based on occupancy factor only; actual may be lower due to limited egress routes)

PROGRAM SPACES AND PERMITTED OCCUPANCIES (based on available egress routes)

ORIGINAL SCHOOL-UPPER LEVEL:

Available Egress Route / Exit: 2 Exits

Available Aggregate Egress Width = 96"

Permitted Occupancy Load= 79 / 0.2 = 395 occupants

Available Aggregate Egress will not be determining factor for occupancy load

ORIGINAL SCHOOL-LOWER LEVEL:

Available Egress Route / Exit: 3 Exits / Exit Routes

Available Aggregate Egress Width = 234"

Available Aggregate Egress will not be determining factor for occupancy load

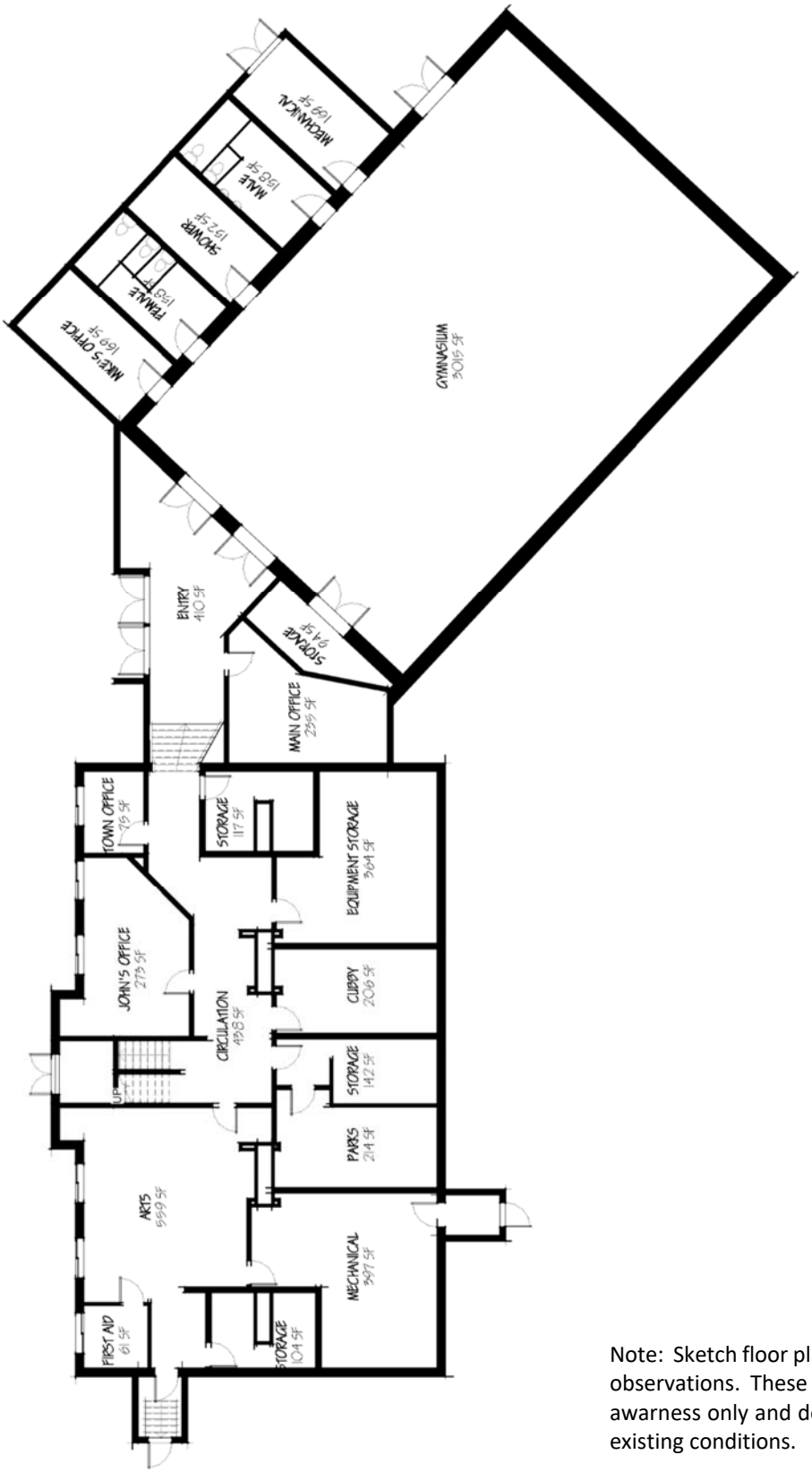
GYMNASIUM ADDITION:

Available Egress Route / Exit: 2 Exits

Available Aggregate Egress Width = 216"

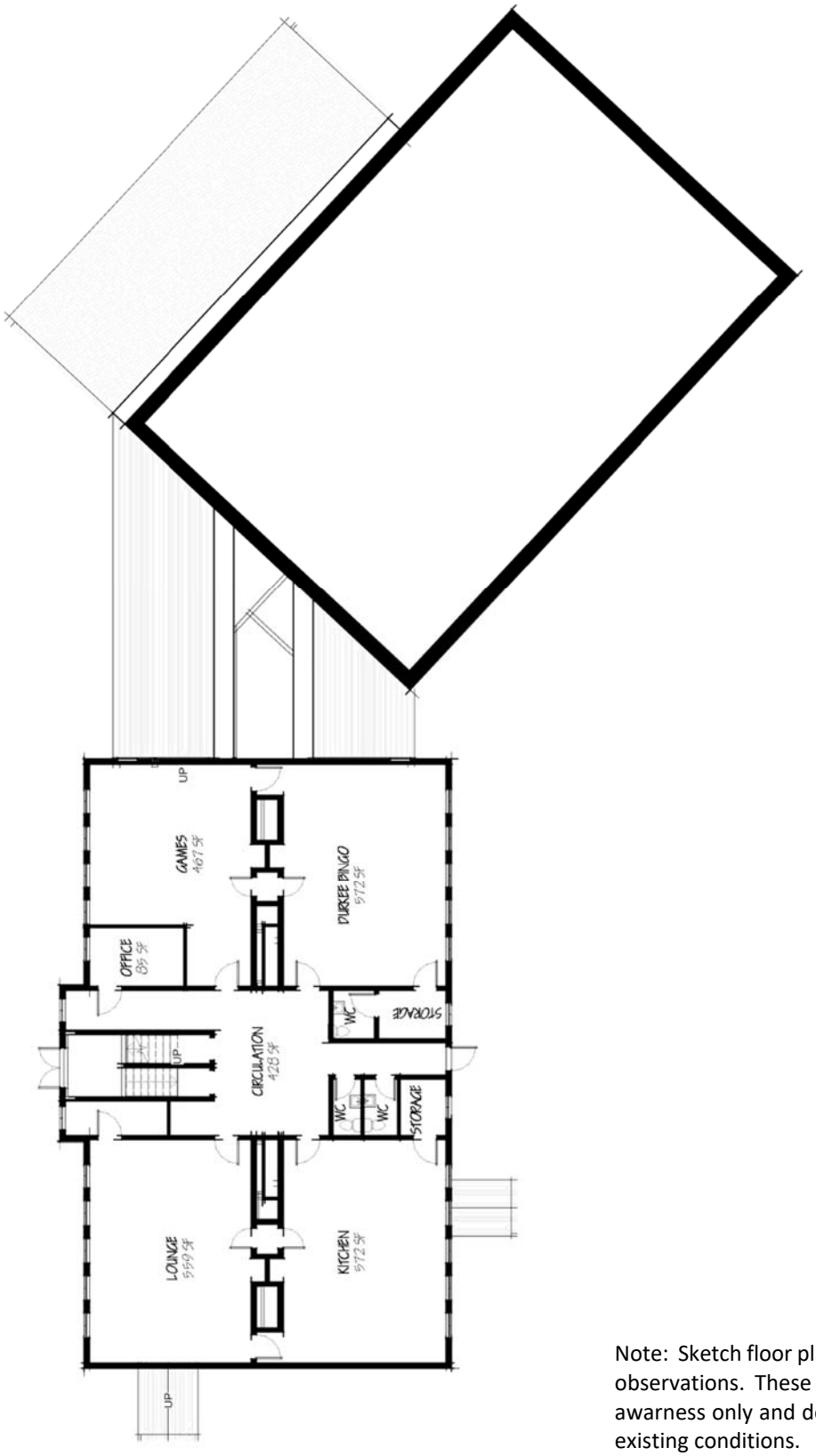
Available Aggregate Egress will not be determining factor for occupancy load

2.3 EXISTING CONDITION SKETCH PLANS — LOWER & GYM LEVEL



Note: Sketch floor plan based on casual field observations. These drawings are for spatial awarness only and do not fully represent all existing conditions.

2.3 EXISTING CONDITION SKETCH PLANS — MAIN LEVEL



Note: Sketch floor plan based on casual field observations. These drawings are for spatial awarness only and do not fully represent all existing conditions.

2.4 RECOMMENDATIONS FOR CONTINUED USE

Based on the proposed/developed programmatic needs of the recreation department, to utilize the current facility and satisfy the programmatic needs of the recreation department, an addition to the facility would need to be created to provide, at the very least, additional or expanded gymnasium space.

Further to that, in response to safety concerns regarding the kitchen facilities and the program needs of those facilities, a new, smaller food service space would need to be created compliant with current code. This space would include commercial range/oven and commercial dishwasher, as well as necessary workspace and storage.

However, in terms of continued use of the existing facility, it is felt the recommendations below are the minimum required for the function of the building as is, and could be achieved without incurring the whole facility upgrade to current code requirements.

RECOMMENDATIONS

BUILDING ENVELOPE UPGRADES / REPAIRS

- Roofing – Replace all asphalt shingle roofs.
- Roofing – Remove flat roof finish/insulation and upgrade insulation to minimum R49. Install new single ply PVC roof covering.
- Siding and Trims- Repair or replace all exterior wood trims at original school main entry door
- Foundation walls–scrap down paint finish to foundation walls, check for cracks and seal as required. Apply new moisture barrier, insulation and finish to outside face of walls.
- Insulation- Remove existing ceiling level insulation within attic space, replace with minimum 14" R3.6 or better dense pack cellulose and cover with air barrier.

STRUCTURAL UPGRADE / REPAIRS

Further investigation would be required to confirm any necessary repairs. At present, it is assumed to be acceptable as is based on no change of use or no substantial renovations.

INTERIOR LAYOUT / FINISH UPGRADE AND / OR REPAIRS

- Wood Flooring-remove carpeting in areas of wood flooring and refinish flooring.
- Ceilings- Remove 'patchwork' of ceiling systems to "art room' replace with single new ceiling
- Generally, replace/repair ceiling systems where finish is compromised.
- Generally, replace/repair wall finishes where finish is compromised.
- General- replace/repaint/refinish all wall/trim finishes in building
- Re-plan Upper Level (school) bathrooms to provide minimum one male, one female and one ADA bathroom, with all new fixtures, fitting and finishes.
- Provide new egress compliant hardware (where not presently existing) to assembly spaces and exit doors.
- Remove VCT finish to gymnasium floor and introduce either rubber finish or floating wood floor finish.
- Introduce proprietary padded wall finish to strategic areas of gymnasium walls.

MEP UPGRADES / REPAIRS

- Life Safety - although it can be argued that, as an existing facility, there is no code requirement for a sprinkler system, to fully realize the potential of the existing/expanded facility, it is highly recommended that a new fire suppression system be installed in the existing elements of the facility that are retained. Any addition will require to have fire suppression to be code compliant.
- Life Safety- Provide new exterior lighting at all egress doors.
- Electrical- Upgrade interior gymnasium lighting with LED fixtures and install tight to the ceiling/structure.
- Electrical- Review the attic wiring in more detail and re-wire as necessary.
- Electrical- Upgrade interior lighting with LED fixtures.
- Electrical- Add convenience receptacles and branch circuits in areas as needed for additional load capability and increased space flexibility. This will likely require the addition of a new branch power panel.
- Electrical- Repair/replace existing receptacles that are damaged.
- Plumbing - Upgrade all plumbing fixtures and fittings to comply with ADA requirements.
- Plumbing-Bring warm water to all lavatories in the 1977 Addition.
- Plumbing-Provide and install new 1" thick heavy density fiberglass pipe insulation with ASJ and precut, formed molded fiberglass with PVC jacketing for all fittings to all domestic water piping. This is required by code for all new construction, however this building is in current use and it would benefit the heat loss throughout the domestic water piping.
- Plumbing-Measure well yield, analyze maximum daily need, and design an integrated approach to eliminating water shortage, incorporating an atmospheric cistern day tank with booster pump, and possible new well.
- Plumbing-Hire a water treatment company to install a system to reduce dissolved iron and other minerals that are fouling the plumbing in the building. Remove the 10-foot abandoned water storage tank in the Clapboard Structure mechanical room to make room for new CW systems.
- Plumbing-Abandon all lead-soldered piping throughout the building and outside. Install all new hot and cold water lines, where needed.
- Plumbing-Toxic Metal: The town should contact the NH DES to learn whether the Center Conway Community Building is regulated under any United States E.P.A or New Hampshire D.E.S. program, and if so, what are the mandated compliance actions. Work with water quality turnkey providers for treatment.
- Mechanical - Replace the damaged Clapboard Structure Buderus boiler with a high efficiency oil fired boiler. Utilize boiler controls which enable automatic control of hot water leaving temperature. Perform load calculations to 'right-size' the boiler (it appears to be oversized).
- Mechanical - Install NFPA code compliant natural ventilation in the Clapboard Structure boiler room. This improves energy efficiency as well safety.
- Mechanical - Provide all new baseboard convector units throughout the building.
- Mechanical - Remove existing gymnasium exhaust fan. Replace with variable speed exhaust fan of code compliant maximum flow rate (0.30 cfm/ft^2), and with a motor operated damper to prevent

infiltration when fan is not operating. Acoustically lined exhaust ductwork for noise control. Integrate control with new ventilation unit (below).

- Mechanical - Reconfigure the hot water branch circuits in 1977 Addition serving offices, Lobby baseboard and Lobby wall heater. Replace zone valves with high efficiency zone circulators, to ensure proper flow through heating elements. Provide hydronic heat to 1977 Addition bathrooms.
- Mechanical - Replace the four R-22 split systems air conditioners in the Clapboard Structure with a single Variable Refrigerant Flow (VRF) heat pump system having a single outdoor unit.
- Mechanical - Replace the four office window air conditioners throughout the building with a single Variable Refrigerant Flow (VRF) heat pump system having a single outdoor unit.
- Mechanical - Replace the gymnasium HV unit with a high efficiency unit having single-zone variable speed controls, with full economizer capability and demand control ventilation controls. Consider a packaged HVAC (cooling) unit for summertime comfort. Add diffusers in gymnasium ductwork and rebalance for improved comfort and code compliance.
- Mechanical - Install motion sensor controls on gymnasium bathroom exhaust fans for code compliance.
- Mechanical - Install exhausting range hood in the Clapboard Structure Kitchen for improved indoor air quality.

LIFE SAFETY UPGRADE / REPAIRS

It is felt that the facility could potentially be upgraded to current performance expectations without surpassing maximum limits set to establish mandatory full compliance of current code.

However, given the nature and range of activities held within the building, as well as the range of age groups and varying levels of emergency egress awareness, it is felt that several life safety upgrades should be made regardless of overall code upgrade requirements.

At present, there is no fire suppression system and the degree of emergency egress provisions is limited. Neither of these conditions would be permissible in a new building of this user type, and could be catastrophic in its current state.

For that reason, it is recommended that at the very least a full sprinkler system is installed as well as improved compliance with egress lighting, alarms and hardware.

ACCESSIBILITY UPGRADE / REPAIRS

Currently, accessibility is limited to the main gymnasium/entry level and the upper level of the school block. Although the upper level access is presently code compliant, it presents seasonal and program issues due to the need to exit the building, traverse around to the back of the building and utilize the only ADA compliant access to the upper level. This is neither desirable or practical for most program needs, and is particularly inconvenient during inclement and winter weather. Nor does it offer access to the lower level.

Further to this, at present, ADA compliant toilet facilities are only available in the gymnasium, which can only be accessed by traversing the gym floor. An inconvenient situation at best, requiring a delay of most activities during that access.

Any alteration or replacement of the facility should include interior access to all levels, either via ramped access or personal lift/elevator.

An additional ADA compliant bathroom facility should also be created in a location easily accessed from any level or program space without interruption to other program spaces.

9.0 DEVELOPMENT CONCEPTS AND ESTIMATE OF PROBABLE COSTS

Utilizing the needs assessment and resultant building program as identified in Task One, and the further understanding of the current conditions of the site and building as identified in Task Two, the design team have developed the following options for consideration.

BASELINE

Renovation of the existing building in current configuration. The baseline is the minimum scope of works for continued operation with minor renovations of existing systems and finishes. The baseline is provided as reference only. For the following reasons, a renovated version of the existing facility will not satisfy the programmatic needs of the recreation department and cannot be considered a viable long term option:

- The facility as it stands is approximately 7,000 +/- square feet short of the programmatic needs.
- Although proposed upgrades of the existing facility include the introduction of a new fire suppression system (deemed necessary for the safety of the intended users), the 'Level 1 Alterations' proposed do not enact the requirement for full current code compliance and would therefore have been deemed an in-appropriate solution for continued use as a recreation center.
- The three-story / split level configuration of the facility imposes complications on the continued use of the facility as a recreation center, requiring additional staff and program constraints to address emergency egress, avoid non-compliance of accessibility needs, and insure supervision and security of youth participants.

OPTION 1

ALSO SEE PRELIMINARY SITE & BUILDING CONCEPT DRAWINGS

Option 1 addresses the needs and programmatic demand with a mixture of renovation and additions. This scope of works will renovate the existing two-story school, upgrading systems and finishes, and providing an elevator for accessibility throughout. The existing gym will be demolished and a new 11,000 +/- square foot addition will be constructed to align with the lower level elevation of the school.

Although this option does address the spatial needs of the program, it is not deemed ideal, and does impose additional constraints on daily activities for the following reasons:

- The two-story configuration of the facility imposes complications on the continued use of the facility as a recreation center, requiring additional staff and program constraints to address emergency egress, avoid non-compliance of accessibility needs, and insure supervision and security of youth participants.

OPTION 2

ALSO SEE PRELIMINARY SITE & BUILDING CONCEPT DRAWINGS

Option 2 provides for the same needs and programmatic demand as Option 1. This will be achieved with the complete demolition of the existing facility and construction of a new, single-story, 17,000 +/- square foot facility.

The following pages summarize the design intent, scope of works, and probable costs associated with each of the above.

9.0 BASELINE

The following is a summary of the scope of works and estimate of probable costs associated with the baseline renovations as previously noted. Please see Items 2.1, 2.2, 2.3, and Appendices III, IV, V, and VI for more detailed recommendations.

SITE WORK, UTILITIES & INFRASTRUCTURE

- Provide New 4,000 Gallon Individual Sewage Disposal System.
- Provide New Drilled Well for Domestic Water Supply.
- Provide New 30,000 Gallon buried Water Cistern for Fire Suppression System.

SELECTIVE DEMOLITION

- None.

RENOVATIONS

- Provide New Roof Finish to Existing School (asphalt shingle) & Gym (rubber membrane).
- Remove Existing Carpet to School - Sand, Repair and Refinish Existing Wood Flooring.
- Patch and repair Existing Wall Finishes to School – Paint all Surfaces.

NEW CONSTRUCTION

- None.

THERMAL ENVELOPE

- Upgrade Roof Insulation to School (ceiling level in attic).
- Upgrade Roof Insulation to Gym (new rigid board).

MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

- Replace Existing School Boiler with new High Efficiency Oil Fired Boiler.
- Replace Existing Split Systems Air Conditioners with Single Variable Refrigerant Flow (VRF) Heat Pump.
- Replace Existing Gym Heating and Ventilation Systems with new High Efficiency Systems.
- Repair and Upgrade Electrical Systems and Lighting as Necessary.
- Repair and Upgrade Plumbing Systems and Fixtures as Necessary.
- Provide New Fire Suppression System.

ESTIMATE OF PROBABLE COSTS **$1,119,870**

9.1 **OPTION 1**

Read in Conjunction with Preliminary Site & Building Concept Drawings

The following is a summary of the scope of works and estimate of probable costs associated with renovation of the existing school and demolition of the existing gym and construction of new. Please see Items 2.1, 2.2, 2.3, and Appendices III, IV, V, and VI for more detailed recommendations.

SITE WORK, UTILITIES & INFRASTRUCTURE

- Provide New 4,000 Gallon Individual Sewage Disposal System.
- Provide New Drilled Well for Domestic Water Supply.
- Provide New 30,000 Gallon buried Water Cistern for Fire Suppression System.

SELECTIVE DEMOLITION

- Demolish Existing Gym Building and Connector to Existing School - Prep for New Addition.
- Selectively demolish Existing School Lower Level Finishes and Partitions as necessary for New Layout.

RENOVATIONS

- Upgrade Existing Floor and Roof Structure for current Load Requirements.
- Provide New Roof Finish to Existing School (asphalt shingle).
- Provide New Floor, Wall and Ceiling Finishes throughout Existing School.
- Patch and repair Existing Wall Finishes to School – Paint all Surfaces.
- Renovate all Existing Bathrooms with New Finishes & Fixtures.
- Provide new elevator to allow accessibility to all building spaces.

NEW CONSTRUCTION

- Provide New 11,000 +/- sq.ft. Gym Addition and Associated Spaces per conceptual layout.

THERMAL ENVELOPE

- Upgrade Roof Insulation to School (ceiling level in attic).
- Provide New High-Performance Building Envelope to New Gym Addition.

MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

- Replace Existing School Boiler with new High Efficiency Oil Fired Boiler.
- Replace Existing Split Systems Air Conditioners with Single Variable Refrigerant Flow (VRF) Heat Pump.
- Repair and Upgrade Electrical Systems and Lighting as Necessary.
- Repair and Upgrade Plumbing Systems and Fixtures as Necessary.
- Provide New Mechanical, Electrical, and Plumbing System in New Gym Addition.
- Provide New Fire Suppression System.

ESTIMATE OF PROBABLE COSTS **$3,163,952**

$186 per square foot

9.2 **OPTION 2**

Read in Conjunction with Preliminary Site & Building Concept Drawing

The following is a summary of the scope of works and estimate of probable costs associated with the complete demolition of the existing facility and construction of new. Please see Items 2.1, 2.2, 2.3, and Appendices III, IV, V, and VI for more detailed recommendations.

SITE WORK, UTILITIES & INFRASTRUCTURE

- Provide New 4,000 Gallon Individual Sewage Disposal System.
- Provide New Drilled Well for Domestic Water Supply.
- Provide New 30,000 Gallon buried Water Cistern for Fire Suppression System.

SELECTIVE DEMOLITION

- Demolish Entire Exiting Facility and Prep Site for New.

RENOVATIONS

- None.

NEW CONSTRUCTION

- Provide New 17,000 +/- sq.ft. Single Story Facility per conceptual layout.

THERMAL ENVELOPE

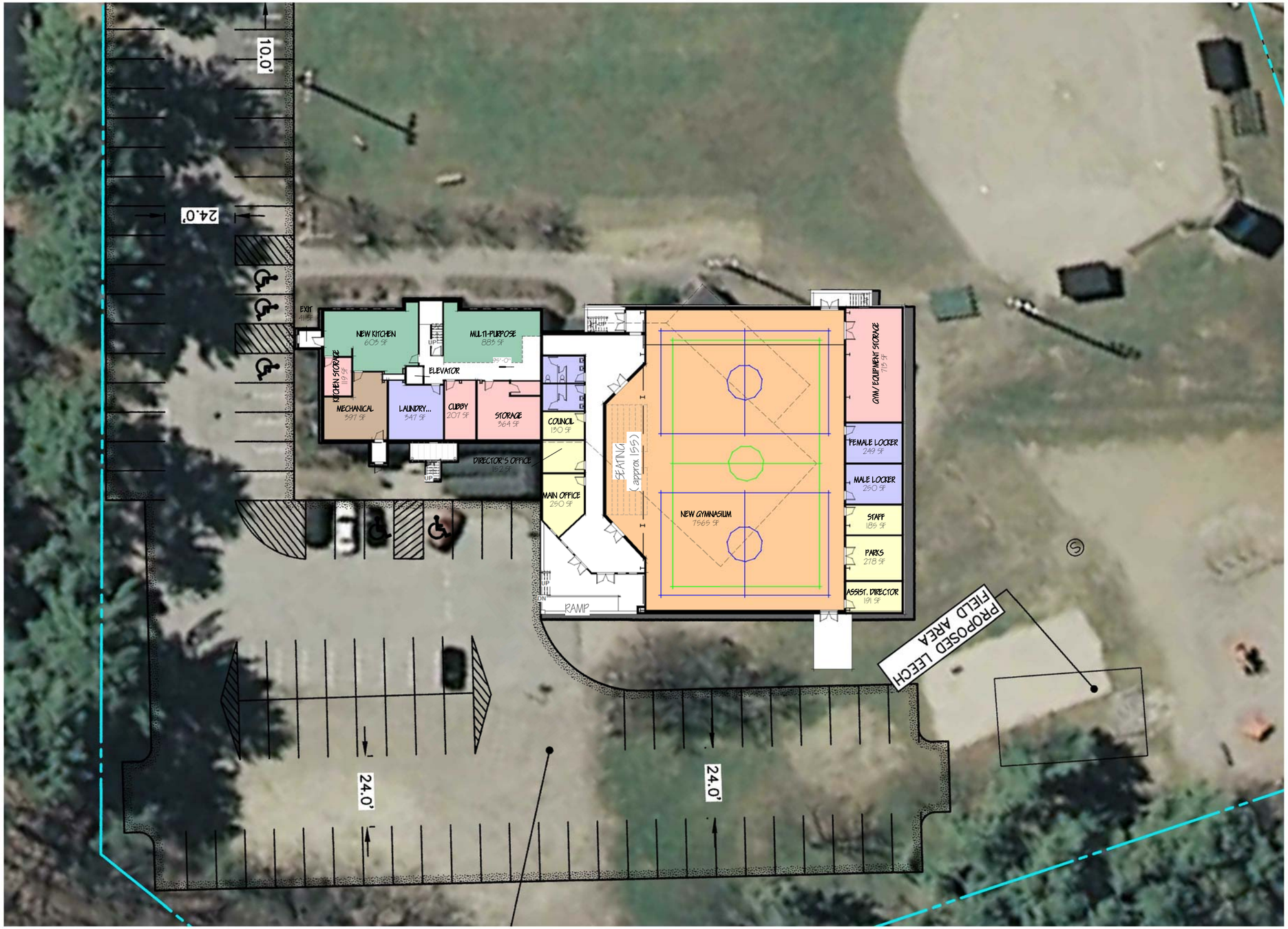
- Provide New High-Performance Building Envelope throughout.

MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

- Provide New Mechanical, Electrical, and Plumbing System for New Construction.
- Provide New Fire Suppression System for New Construction

ESTIMATE OF PROBABLE COSTS **$3,958,103**

$232 per square foot



1 Proposed Main Floor Plan - Concept 1
1/16" = 1'-0"

PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION

DRAWINGS ARE SUBJECT TO CHANGE. ANY ASSUMPTIONS BASED ON THESE DRAWINGS ARE AT THE SOLE RESPONSIBILITY OF THE ASSUMER

GENERAL NOTES:

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PROJECT NAME & ADDRESS:
OPTION 1 - RECREATION CENTER
TOWN OF CONWAY
ROUTE 302, CONWAY NH

CONCEPT PLAN - OPTION 1

SK 1

preliminary 10-10-17

alba architects llp . stuart j anderson & philip m bennett . po box 186 . 137 main street . north woodstock . new hampshire . 03262 . (603) 745-4770 . www.albaarchitects.com

2017-067
Option 1: Addition to Building Max Parking Layout
Conway Recreation Center

C1.04
SHEET 4 OF 5

40 0 40 80 160 ft
8 0 20 40 m
1 inch = 40 feet
(1 : 480)

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Post Office Box 343
Bridgton, ME 04009

SURVEYED BY	–
DESIGNED BY	MKT
DRAWN BY	MKT
CHECKED BY	JMM
FIELD BOOK	–
SCALE	1"=40'
DATE	10/11/2017

Option 1: Addition to Building Max Parking Layout
for the
Conway Recreation Center
located in
Conway, New Hampshire
prepared for
Alba Architects LLP

PRELIMINARY
NOT FOR
CONSTRUCTION

2017-067
C1.04
SHEET 4 OF 5

C1.05
SHEET 5 OF 5

2017-067
Option 1: Addition to Building Min Parking Layout
Conway Recreation Center

40 0 40 80 160 ft
8 0 20 40 m
1 inch = 40 feet
(1 : 480)

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CHECKED BY	JMM
FIELD BOOK	–
SCALE	1"=40'
DATE	10/11/2017

Option 1: Addition to Building Min Parking Layout
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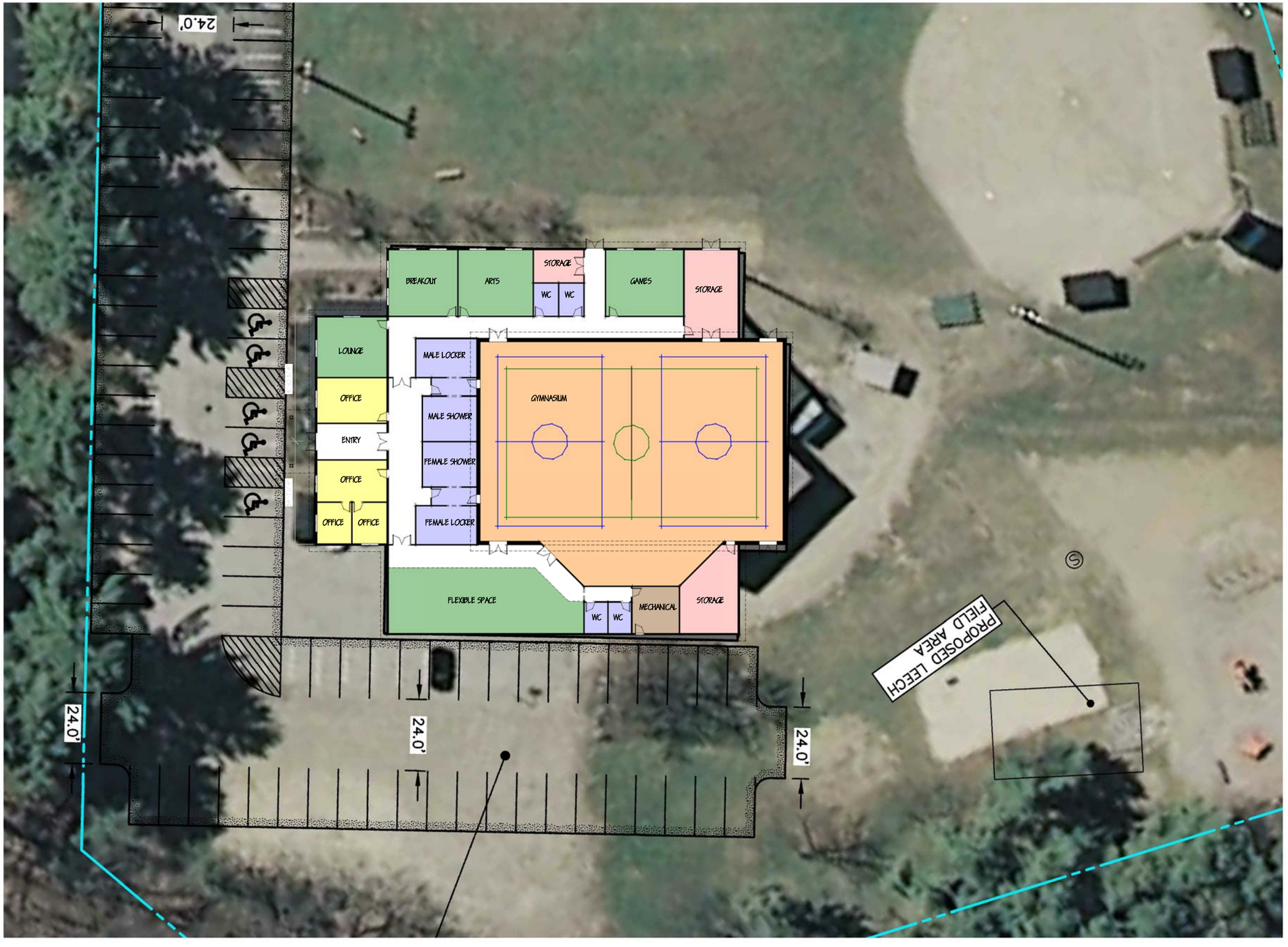
2017-067
C1.05
SHEET 5 OF 5



1 Proposed Plan - Option 2
1/16" = 1'-0"

PRELIMINARY DRAWINGS NOT FOR CONSTRUCTION

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GENERAL NOTES:

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PROJECT NAME & ADDRESS:
OPTION 2 - RECREATION CENTER
Town of Conway
Street Address, City, State, Zip

CONCEPT PLAN - OPTION 2

SK 2

preliminary 10-10-17

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C1.02
SHEET 2 OF 5

2017-067
Option 2: New Building Max Parking Layout
Conway Recreation Center

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8 0 20 40 m
1 inch = 40 feet
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DRAWN BY	MKT
CHECKED BY	JMM
FIELD BOOK	–
SCALE	1"=40'
DATE	10/11/2017

Option 2: New Building Max Parking Layout
for the
Conway Recreation Center
located in
Conway, New Hampshire
prepared for
Alba Architects LLP

PRELIMINARY
NOT FOR
CONSTRUCTION

2017-067
C1.02
SHEET 2 OF 5

C1.03
SHEET 3 OF 5

2017-067
Option 2: New Building Min Parking Layout
Conway Recreation Center

40 0 40 80 160 ft
8 0 20 40 m
1 inch = 40 feet
(1 : 480)

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DESIGNED BY	MKT
DRAWN BY	MKT
CHECKED BY	JMM
FIELD BOOK	–
SCALE	1"=40'
DATE	10/11/2017

Option 2: New Building Min Parking Layout
for the
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located in
Conway, New Hampshire
prepared for
Alba Architects LLP

PRELIMINARY
NOT FOR
CONSTRUCTION

2017-067
C1.03
SHEET 3 OF 5

APPENDIX I

COMMUNITY SURVEY RESULTS

PRO SIGN UP SIGN UP FREE SIGN IN

Conway Parks and Recreation Department Programs and services survey

Programs Survey

QUESTION SUMMARIES DATA TRENDS INDIVIDUAL RESPONSES

Share Tweet G+ Share Share

RESPONSES 125 VIEWS 6

21 days (8/21/2017 - now)

Need Insights?

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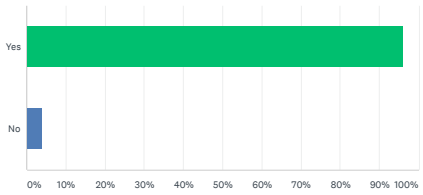
Q1

Are you a resident of Conway or Albany?

Answered: 125 Skipped: 0

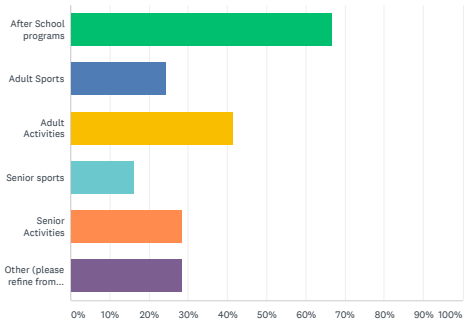


ANSWER CHOICES	RESPONSES	
Yes	96.00%	120
No	4.00%	5
TOTAL		125

Q2

Please select up to 3 items which represent needs in the community you feel are under-served or would be a good addition to the recreation program.

Answered: 123 Skipped: 2

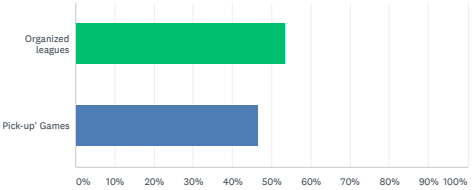


ANSWER CHOICES		RESPONSES	
After School programs		66.67%	82
Adult Sports		24.39%	30
Adult Activities		41.46%	51
Senior sports		16.26%	20
Senior Activities		28.46%	35
Other (please refine from list above or add to list)	Responses	28.46%	35
Total Respondents: 123			

Q3

Based on your answers above, would you be more interested in:

Answered: 120 Skipped: 5

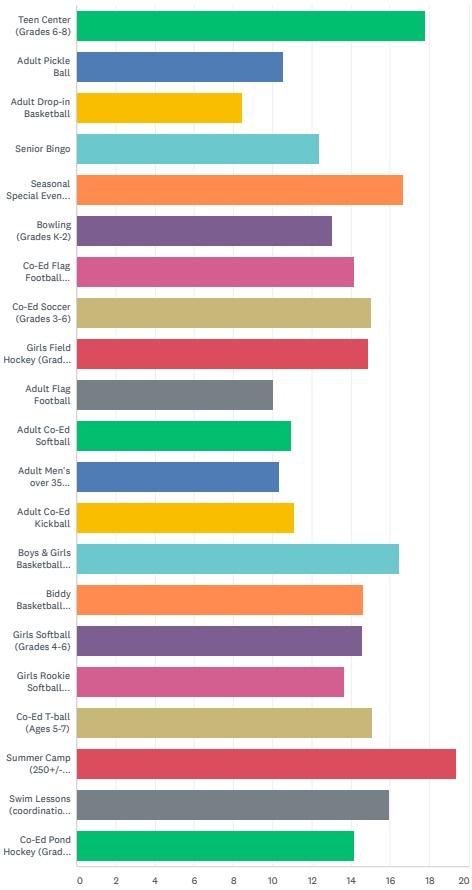


ANSWER CHOICES	RESPONSES	
Organized leagues	53.33%	64
Pick-up' Games	46.67%	56
TOTAL		120

Q4

Please prioritize programs (1 high-10 low) if space and budget restrict what is available (number all items of interest):

Answered: 118 Skipped: 7



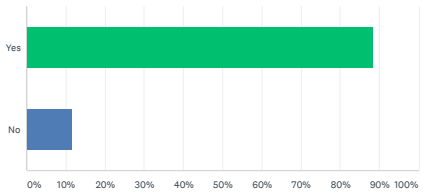
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	TOTAL	SCORE
Teen Center (Grades 6-8)	25.00% 19	26.32% 20	10.53% 8	6.58% 5	7.89% 6	5.26% 4	1.32% 1	1.32% 1	3.95% 3	5.26% 4	1.32% 1	0.00% 0	1.32% 1	0.00% 0	0.00% 0	0.00% 0	1.32% 1	1.32% 1	0.00% 0	0.00% 0	1.32% 1	76	17.80
Adult Pickle Ball	10.81% 4	0.00% 0	5.41% 2	2.70% 1	10.81% 4	5.41% 2	5.41% 2	2.70% 1	2.70% 1	8.11% 3	0.00% 0	0.00% 0	2.70% 1	2.70% 1	0.00% 0	2.70% 1	5.41% 2	2.70% 1	8.11% 3	8.11% 3	13.51% 5	37	10.54
Adult Drop-in Basketball	3.03% 1	0.00% 0	9.09% 3	0.00% 0	6.06% 2	3.03% 1	3.03% 1	0.00% 0	3.03% 1	9.09% 3	3.03% 1	0.00% 0	0.00% 0	3.03% 1	6.06% 2	9.09% 3	3.03% 1	9.09% 3	6.06% 2	15.15% 5	9.09% 3	33	8.45
Senior Bingo	2.50% 1	7.50% 3	5.00% 2	7.50% 3	12.50% 5	10.00% 4	7.50% 3	0.00% 0	2.50% 1	10.00% 4	0.00% 0	2.50% 1	2.50% 1	2.50% 1	2.50% 1	7.50% 3	2.50% 1	2.50% 1	0.00% 0	2.50% 1	10.00% 4	40	12.38
Seasonal Special Events (Halloween Party, Easter Egg Hunt, Turkey Trot Race, Letters to Santa etc.)	12.68% 9	12.68% 9	19.72% 14	14.08% 10	11.27% 8	1.41% 1	2.82% 2	4.23% 3	4.23% 3	7.04% 5	1.41% 1	0.00% 0	2.82% 2	1.41% 1	0.00% 0	0.00% 0	1.41% 1	0.00% 0	0.00% 0	1.41% 1	1.41% 1	71	16.66
Bowling (Grades K-2)	0.00% 0	4.65% 2	6.98% 3	6.98% 3	6.98% 3	13.95% 6	9.30% 4	6.98% 3	4.65% 2	6.98% 3	2.33% 1	4.65% 2	2.33% 1	6.98% 3	4.65% 2	2.33% 1	0.00% 0	6.98% 3	0.00% 0	2.33% 1	0.00% 0	43	13.02
Co-Ed Flag Football (Grades 2-4)	0.00% 0	12.77% 6	8.51% 4	14.89% 7	4.26% 2	8.51% 4	6.38% 3	6.38% 3	6.38% 3	8.51% 4	0.00% 0	6.38% 3	0.00% 0	0.00% 0	6.38% 3	2.13% 1	2.13% 1	0.00% 0	4.26% 2	2.13% 1	0.00% 0	47	14.13
Co-Ed Soccer (Grades 3-6)	8.89% 4	11.11% 5	11.11% 5	2.22% 1	8.89% 4	8.89% 4	11.11% 5	8.89% 4	0.00% 0	11.11% 5	2.22% 1	2.22% 1	2.22% 1	2.22% 1	2.22% 1	2.22% 1	0.00% 0	2.22% 1	0.00% 0	2.22% 1	0.00% 0	45	15.04
Girls Field Hockey (Grades 3-6)	5.13% 2	2.56% 1	12.82% 5	5.13% 2	10.26% 4	10.26% 4	20.51% 8	5.13% 2	7.69% 3	2.56% 1	2.56% 1	0.00% 0	7.69% 3	2.56% 1	0.00% 0	0.00% 0	5.13% 2	0.00% 0	0.00% 0	0.00% 0	0.00% 0	39	14.87

Adult Flag Football	0.00% 0	3.13% 1	6.25% 2	3.13% 1	3.13% 1	9.38% 3	12.50% 4	3.13% 1	3.13% 1	3.13% 1	0.00% 0	6.25% 2	0.00% 0	3.13% 1	3.13% 1	6.25% 2	9.38% 3	3.13% 1	12.50% 4	3.13% 1	6.25% 2	32	10.06
Adult Co-Ed Softball	2.94% 1	5.88% 2	0.00% 0	2.94% 1	5.88% 2	5.88% 2	8.82% 3	2.94% 1	5.88% 2	8.82% 3	2.94% 1	0.00% 0	11.76% 4	5.88% 2	5.88% 2	0.00% 0	5.88% 2	8.82% 3	5.88% 2	2.94% 1	0.00% 0	34	10.97
Adult Men's over 35 Softball	3.23% 1	3.23% 1	3.23% 1	0.00% 0	0.00% 0	9.68% 3	6.45% 2	9.68% 3	3.23% 1	6.45% 2	6.45% 2	3.23% 1	3.23% 1	3.23% 1	6.45% 2	9.68% 3	6.45% 2	3.23% 1	6.45% 2	3.23% 1	3.23% 1	31	10.35
Adult Co-Ed Kickball	2.38% 1	2.38% 1	2.38% 1	4.76% 2	7.14% 3	9.52% 4	9.52% 4	4.76% 2	4.76% 2	9.52% 4	0.00% 0	4.76% 2	0.00% 0	7.14% 3	4.76% 2	2.38% 1	0.00% 0	9.52% 4	4.76% 2	4.76% 2	4.76% 2	42	11.07
Boys & Girls Basketball (Grades 3-6)	9.43% 5	7.55% 4	11.32% 6	7.55% 4	16.98% 9	9.43% 5	11.32% 6	9.43% 5	9.43% 5	1.89% 1	1.89% 1	1.89% 1	1.89% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	53	16.43
Biddy Basketball (Grades K-2)	2.70% 1	10.81% 4	10.81% 4	10.81% 4	5.41% 2	5.41% 2	5.41% 2	16.22% 6	8.11% 3	5.41% 2	5.41% 2	0.00% 0	0.00% 0	5.41% 2	0.00% 0	0.00% 0	2.70% 1	2.70% 1	2.70% 1	0.00% 0	0.00% 0	37	14.65
Girls Softball (Grades 4-6)	0.00% 0	13.16% 5	5.26% 2	10.53% 4	7.89% 3	7.89% 3	5.26% 2	10.53% 4	13.16% 5	5.26% 2	5.26% 2	5.26% 2	2.63% 1	0.00% 0	2.63% 1	5.26% 2	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	38	14.58
Girls Rookie Softball (Grades 2-3)	0.00% 0	2.94% 1	14.71% 5	2.94% 1	8.82% 3	11.76% 4	5.88% 2	5.88% 2	8.82% 3	11.76% 4	8.82% 3	0.00% 0	2.94% 1	2.94% 1	5.88% 2	2.94% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	2.94% 1	34	13.65
Co-Ed T-ball (Ages 5-7)	0.00% 0	8.51% 4	4.26% 2	21.28% 10	10.64% 5	12.77% 6	8.51% 4	4.26% 2	6.38% 3	4.26% 2	0.00% 0	10.64% 5	4.26% 2	0.00% 0	0.00% 0	2.13% 1	2.13% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	47	15.09
Summer Camp (250+/- registrants, 150 +/- daily attendance)	66.67% 52	10.26% 8	3.85% 3	6.41% 5	2.56% 2	0.00% 0	1.28% 1	2.56% 2	1.28% 1	1.28% 1	0.00% 0	0.00% 0	0.00% 0	1.28% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.28% 1	1.28% 1	78	19.38
Swim Lessons (coordination only, swimming at Conway Lake Beach)	14.75% 9	14.75% 9	11.48% 7	8.20% 5	11.48% 7	1.64% 1	1.64% 1	9.84% 6	6.56% 4	4.92% 3	0.00% 0	1.64% 1	3.28% 2	1.64% 1	1.64% 1	1.64% 1	1.64% 1	1.64% 1	0.00% 0	0.00% 0	1.64% 1	61	15.95
Co-Ed Pond Hockey (Grades 1-6)	7.55% 4	11.32% 6	13.21% 7	7.55% 4	0.00% 0	5.66% 3	7.55% 4	7.55% 4	5.66% 3	9.43% 5	5.66% 3	3.77% 2	0.00% 0	1.89% 1	0.00% 0	1.89% 1	0.00% 0	0.00% 0	3.77% 2	5.66% 3	1.89% 1	53	14.19

Q5

Do you feel there is sufficient interest and resources in the above selections to conduct these programs for 10 or more years?

Answered: 122 Skipped: 3

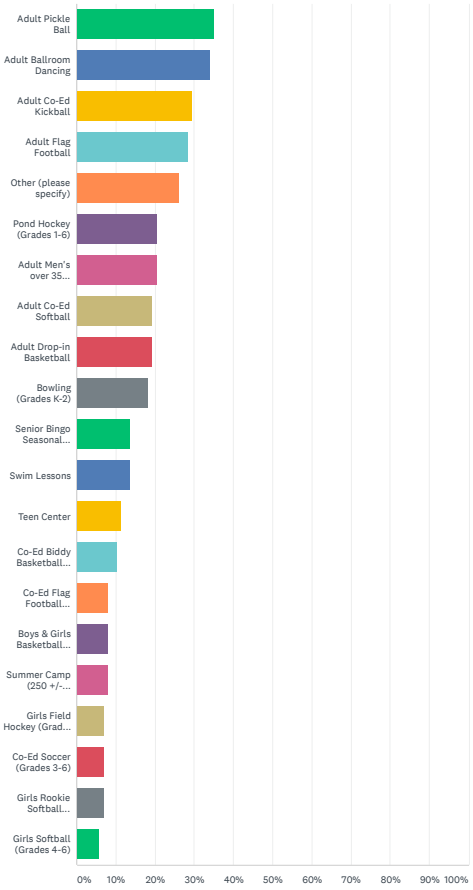


ANSWER CHOICES	RESPONSES	
Yes	88.52%	108
No	11.48%	14
TOTAL		122

Q6

What, in your opinion, are programs that should not be offered with the Conway Parks and Recreation Department?

Answered: 88 Skipped: 37



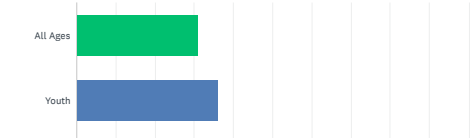
ANSWER CHOICES		RESPONSES	
Adult Pickle Ball		35.23%	31
Adult Ballroom Dancing		34.09%	30
Adult Co-Ed Kickball		29.55%	26
Adult Flag Football		28.41%	25
Other (please specify)	Responses	26.14%	23
Pond Hockey (Grades 1-6)		20.45%	18
Adult Men's over 35 Softball		20.45%	18
Adult Co-Ed Softball		19.32%	17
Adult Drop-in Basketball		19.32%	17
Bowling (Grades K-2)		18.18%	16
Senior Bingo Seasonal Special Events		13.64%	12
Swim Lessons		13.64%	12
Teen Center		11.36%	10
Co-Ed Biddy Basketball (Grades K-2)		10.23%	9
Co-Ed Flag Football (Grades 2-4)		7.95%	7
Boys & Girls Basketball (13-14 teams, Grades 3-6)		7.95%	7
Summer Camp (250 +/- registrants, 150 +/- daily attendance)		7.95%	7
Girls Field Hockey (Grades 3-6)		6.82%	6
Co-Ed Soccer (Grades 3-6)		6.82%	6
Girls Rookie Softball (Grades 2-3)		6.82%	6
Girls Softball (Grades 4-6)		5.68%	5

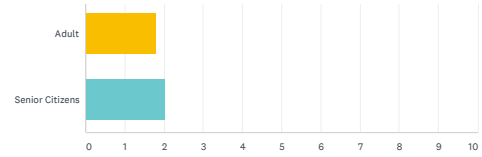
Total Respondents: 88

Q7

Do you feel more emphasis should be put on a recreation program for all ages or continue with a more youth based program? (Please Rank 1 highest, 4 lowest)

Answered: 125 Skipped: 0



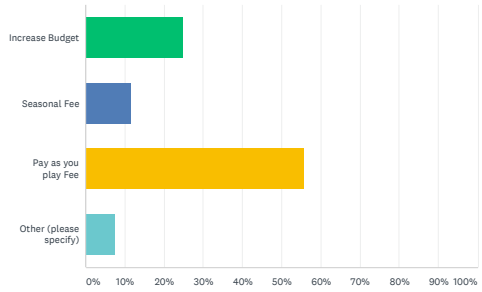


	1	2	3	4	TOTAL	SCORE
All Ages	44.68% 42	32.98% 31	8.51% 8	13.83% 13	94	3.09
Youth	70.71% 70	21.21% 21	5.05% 5	3.03% 3	99	3.60
Adult	2.35% 2	11.76% 10	49.41% 42	36.47% 31	85	1.80
Senior Citizens	5.68% 5	27.27% 24	31.82% 28	35.23% 31	88	2.03

Q8

Do you feel expanded programs for a wider age range should be included in the recreation program budget or a participation fee to cover cost?

Answered: 120 Skipped: 5

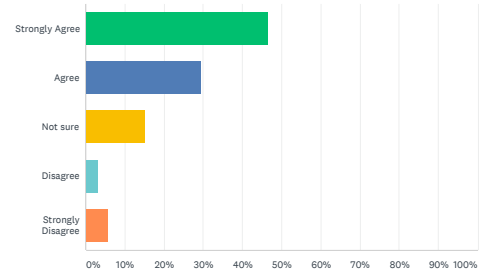


ANSWER CHOICES		RESPONSES	
Increase Budget		25.00%	30
Seasonal Fee		11.67%	14
Pay as you play Fee		55.83%	67
Other (please specify)	Responses	7.50%	9
TOTAL			120

Q9

Do you feel a potential increase in programs and services would be sufficient reason for expanded facilities?

Answered: 125 Skipped: 0

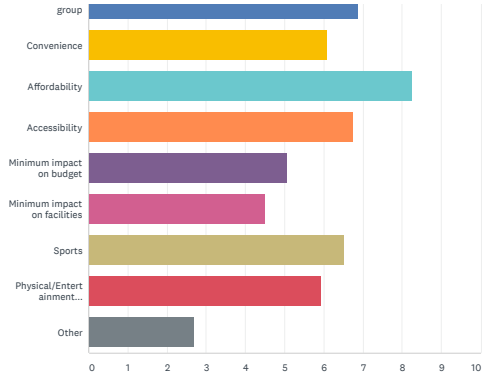


ANSWER CHOICES	RESPONSES	
Strongly Agree	46.40%	58
Agree	29.60%	37
Not sure	15.20%	19
Disagree	3.20%	4
Strongly Disagree	5.60%	7
TOTAL		125

Q10

When considering future programs, what criteria should they be assessed on? (Prioritize 1-high, 10-low)

Answered: 113 Skipped: 12



	1	2	3	4	5	6	7	8	9	10	TOTAL	SCORE
Largest group served	53.42% 39	15.07% 11	4.11% 3	9.59% 7	1.37% 1	4.11% 3	6.85% 5	2.74% 2	0.00% 0	2.74% 2	73	8.37
Specific age group	17.14% 12	24.29% 17	14.29% 10	4.29% 3	7.14% 5	7.14% 5	11.43% 8	5.71% 4	4.29% 3	4.29% 3	70	6.89
Convenience	5.26% 3	12.28% 7	15.79% 9	12.28% 7	12.28% 7	14.04% 8	14.04% 8	5.26% 3	8.77% 5	0.00% 0	57	6.09
Affordability	27.71% 23	21.69% 18	26.51% 22	9.64% 8	7.23% 6	4.82% 4	0.00% 0	1.20% 1	0.00% 0	1.20% 1	83	8.24
Accessibility	7.94% 5	11.11% 7	17.46% 11	23.81% 15	15.87% 10	11.11% 7	4.76% 3	3.17% 2	4.76% 3	0.00% 0	63	6.75
Minimum impact on budget	12.07% 7	3.45% 2	6.90% 4	8.62% 5	6.90% 4	10.34% 6	13.79% 8	17.24% 10	18.97% 11	1.72% 1	58	5.07
Minimum impact on facilities	1.89% 1	9.43% 5	1.89% 1	7.55% 4	11.32% 6	13.21% 7	13.21% 7	15.09% 8	18.87% 10	7.55% 4	53	4.49
Sports	23.73% 14	6.78% 4	15.25% 9	6.78% 4	10.17% 6	10.17% 6	5.08% 3	10.17% 6	8.47% 5	3.39% 2	59	6.51
Physical/Entertainment activity other than sports	2.94% 2	14.71% 10	10.29% 7	17.65% 12	16.18% 11	10.29% 7	11.76% 8	4.41% 3	5.88% 4	5.88% 4	68	5.94
Other	6.25% 2	6.25% 2	3.13% 1	0.00% 0	0.00% 0	3.13% 1	3.13% 1	3.13% 1	12.50% 4	62.50% 20	32	2.69

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APPENDIX II

EXISTING CONDITIONS PHOTOGRAPHIC SURVEY

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Exterior – South Elevation
Existing building as viewed from approach driveway.

Exterior - South West Elevation
Original two-story schoolhouse with central split-level entry.
(circa. 1900).

Exterior - South East Elevation
Original two-story schoolhouse with central split-level entry.
(circa. 1900).

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Exterior – North East Elevation
Original two-story schoolhouse. Covered ramp addition to address accessibility concerns. 1977 Gymnasium addition visible to the right.

Exterior – North East Elevation
1977 single-story gymnasium addition.

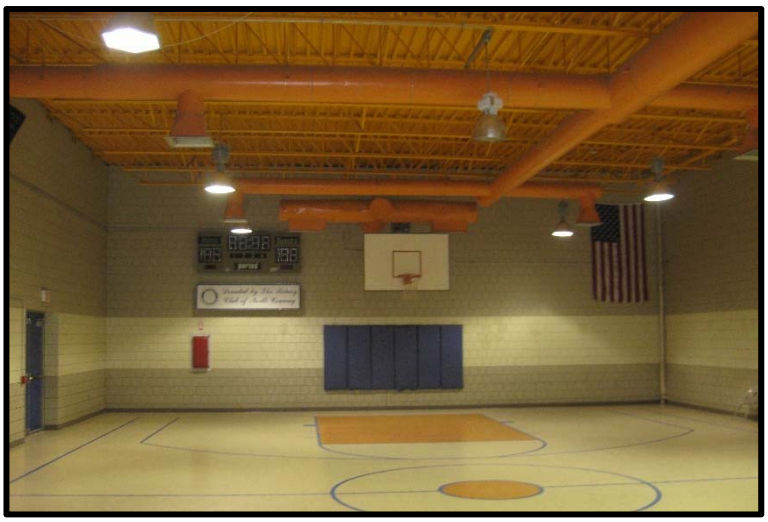
Exterior - West Elevation
1977 single-story gymnasium addition with block 'lean-to' housing bathroom and mechanical functions.

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Exterior – South West Elevation
1977 single story gymnasium addition to the left, original two-story schoolhouse to the right. 1977 single-story 'connector' to the middle.

Exterior – Primary Entry
1977 single-story 'connector' provides primary entry to the existing facility.



Interior - Gymnasium
1977 gymnasium, cinder block exterior walls and clear span bar joist roof.

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Interior - Gymnasium
1977 gymnasium, cinder block exterior walls and clear span bar joist roof.

Interior – Split Level Connector
1977 primary entry 'connector'. Entry level aligns with gymnasium addition, split level elevation between floors of original two-story schoolhouse.

Interior – Lower Level
Original schoolhouse typical lower level space currently utilized as 'craft room'.

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Interior – Lower Level
Original schoolhouse lower level storage room.

Interior – Lower Level
Original schoolhouse typical lower level space currently utilized as storage for summer program.

Interior – Lower Level
Original schoolhouse lower level mechanical room.

EXISTING PHOTOGRAPHIC SURVEY

date: 20th July, 2017 - weather conditions: mostly sunny, good visibility, approx. 75 degrees F.

Interior – Main Level
Original schoolhouse typical main level classroom space.

Interior – Main Level
Original schoolhouse typical main level classroom / kitchen space.

Interior – Main Level
Original schoolhouse typical main level corridor space.

APPENDIX III

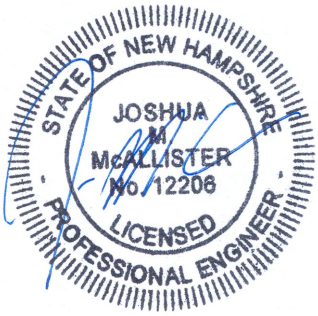
EXISTING SITE / CIVIL OBSERVATIONS AND CONDITIONS ASSESSMENT

SITE CONDITION SUMMARY REPORT

CONWAY RECREATION CENTER
CONWAY
NEW HAMPSHIRE

Prepared for:
Alba Architects

October 11, 2017



Prepared by:
HEB Engineers, Inc.

Project #2017-067

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October 11, 2017

Stuart Anderson, AIA
Alba Architects
137 Daniel Webster Highway
North Woodstock, NH 03262

Re: Conway Recreation Center, Conway, NH
Site Condition Summary Report
HEB Project #2017-067

Dear Stuart,

This Letter Report has been prepared to discuss the status of the existing building and site of the Conway Recreation Center on East Main Street in Center Conway, NH. The intent of this report is to review the current status of the existing site and utilities based on review of available project files and a site walk completed by HEB Engineers, Inc. (HEB) on September 18, 2017. Additionally, this report will outline some proposed options to meet the on-site needs for proposed upgrades to the recreation facility, including utility considerations, parking upgrades and layout needs. Presented in this Letter Report are my field observations, file review understanding, conclusions, and recommendations. Design drawings are not included with this report. This work was conducted in accordance with our Letter Agreement, dated August 9, 2017.

Project Background Understanding:

The Town of Conway is reviewing potential upgrade alternatives for the facilities utilized by the Conway Parks & Recreation Department. Specifically, the Town is reviewing the viability of the current Conway Community Building that houses a majority of the Recreation Department's programs and staff offices.

The current site has been developed over several phases beginning with the original construction of the Pine Tree School in the early 1900s. The original Pine Tree School building is still in use as the easternmost part of the overall structure. In 1977, an addition was completed that included a gymnasium. This addition was added to the western side of the original school building. The building served as an elementary school until it was given to the Town for the Recreation Department around 1990. This use has continued since that time.

Over time, the facility has aged and several components of the facility have begun to fail, including water systems, septic systems and various other in-building infrastructure. Additionally, usage of the facility has continued to grow with close to 200 children using the facility over the summer and dozens of youth programs run out of the facility.

With the failing systems, the Recreation Department has stopped utilizing the on-site water for drinking water due to lead and copper contamination, and infrequently uses the bathrooms due to the lack of available water. Additionally, the large numbers of summer day-camp users has taxed the facility to a point that a large tent has been added to the site to provide cover for the children during the summer heat and additional overall space.

With all of these deficiencies known, in addition to other internal deficiencies both known and unknown, the Town of Conway is exploring options for providing improved facilities for the Recreation Department.

Water System Findings:

The Conway Community Building has a drilled well located on the northeast of the original Pine Tree School Building. HEB conducted an in-depth review of NHDES files associated with wells for this property with limited findings. Available information included copies of water quality testing that was conducted between 1999 and 2017.

Information pertaining to the original installation date for the well was not available through on-line research. During review of project construction files for the construction of the gym expansion in 1977, the well is indicated as an existing condition, dating it back further than 1977.

Original records regarding drilling of the well, well capacity and testing of water directly from the well source could not be found in on-line records review.

A summary of the available water quality testing from NHDES One-Stop Data Base is included in Attachment A.

Septic System Findings:

The Conway Community Building has an on-site septic system. This system is located to the northwest of the gym addition building in the general vicinity of the tent location and the playground.

The current system was approved by NHDES for installation in 1977 and constructed sometime in 1977 or 1978. The system consists of a 7-foot wide, 7-foot high, 14-foor long (7'Wx7'Hx14'L) concrete septic tank and a 50-foot by 50-foot (50'x50') leach field. The leach field is a "pipe in stone" system with a 4-inch perforated pipe in a 12-inch deep stone envelope.

It is not apparent if the system meets current NHDES design standards, as many of the construction details, including material specifications for the stone and the pipe were not included on design drawings and calculations for estimated flow rates to the system are unavailable. Additionally, given that the system is approximately 40 years old, it has exceeded the typical useful life (30 years) for septic systems.

A copy of the design drawings for the septic system as well as the NHDES approval from 1977 are included in Attachment B.

Site Features Analysis:

HEB conducted a site walk of the facility to gather necessary information on the overall onsite infrastructure at the Conway Community Building. A sketch of some of the findings, specific to on-the-ground features is included in Attachment C as Sheet C1.01. The following is a summary of the findings of the site walk:

- **Parking:**
  Parking is available on the east side of the athletic field and building as well and to the north of the building.

  The parking along the entry drive to the east of the fields and building includes 27 perpendicular parking spaces against the field fence and the building as well as 16 parallel spaces along the east side of the drive. The perpendicular parking spaces are very undersized at 8.5 feet wide by 13.5 feet long (8.5'Wx13.5'L) as compared to typical parking space dimensions of 9 feet wide by 18 feet long (9'Wx18'L). These reduced parking space sizes create difficulty for vehicles to safely maneuver into spaces without colliding with other vehicles. The parallel spaces are generally adequately sized.

  The parking area in the rear consists of 13 parking spaces that are similarly sized to the ones located adjacent to the athletic field and are within a paved parking lot with adequate drive aisle space. The lot is not fully striped throughout the paved area due to need for vehicle movements. Additional parking spaces could be added if needed in the paved lot. To the north of the paved lot is an approximate 9,500-square foot gravel lot that is also used for parking and storage.

  The total striped parking on-site includes 55 spaces. During times of high volume use (voting), this parking space number is inadequate. Parking extends to the gravel lot to the north of the rear parking lot as well as into East Main Street (NH Route 113, US Route 302) and onto the adjacent property. Historic use would indicate that 55 spaces and the available 9,500-square foot gravel lot is inadequate for high demand events at the facility.

- **Site Drainage:**
  There is limited evidence of on-site stormwater management for the facility and parking areas. Stormwater generally sheet flows to low spots in the parking lot and puddles until evaporation or follows site grading to the north off-site. There is a drywell catch basin located to the west of the gym building managing stormwater exiting the athletic field between the field and the building.

  The general topography of the site slopes form south to north toward the Saco River. The lowest areas of the facility are in the vicinity of the playground/tent area.

- **Septic System:**
  The existing septic system, as indicated previously, is located in the vicinity of the playground/tent area. A manhole cover for the septic tank is visible in the slope leading to the playground. This is likely the best place to locate the system due to the grade being significantly below building finished floor elevation, allowing for a gravity fed system.

- **Water:**
  As indicated above, the well is located on the northeast corner of the original Pine Tree School building. The well cap extends a couple of feet above finished grade. This location is acceptable based on the location of the septic system; however, should a new well need to be drilled a different location may need to be explored based on proposed building geometry and final septic location.

- **Recreation Facilities:**
  The exterior on-site recreation facilities include the following:
  - Large field area extending west to east parallel to East Main Street. This field includes large scale night lighting around the perimeter.
  - A softball field located in the northwest corner of the athletic field. The field includes dugouts, a score box/storage building.
  - Concession building.
  - Playground
  - Sandy area for tent setup.

Recommendations:

HEB was provided draft building footprints by Alba Architects for the following two on-site building improvement options:

Option 1: Rehabilitate the old Pine Tree School portion of the building, demolish the existing Gym Addition and provide a new 11,000-square foot addition.

Option 2: Demolish the entire existing structure and provide a new ±17,000-square foot recreation building.

Based on the information previously provided in this report as well as the proposed draft building alternatives, HEB provides the following comments and recommendations:

- **Parking:**
  The existing parking for the development is inadequate in both dimensional size and quantity. HEB reviewed the proposed uses at the facility to determine the potential parking needs for the new recreation facility. Utilizing the Institute of Transportation Engineers' "Parking Generation" Manual, HEB identified the land use as a Recreational Community Center. The average parking demand for the study sites in the manual 3 spaces per 1,000 square feet of floor area. With this parking demand and the fact that both the newly constructed option and the rehabilitation/addition option are approximately 18,000 square feet in size, 54 spaces would be required at the new facility. Given that the new facility will likely provide additional services and the existing 55 spaces plus the gravel lot is inadequate for current uses, it is likely that this facility will need to maximize available on-site parking.

  HEB completed two parking layout options for each of the proposed building upgrades. Each building option includes a parking option for the minimum number of spaces provided by ITE as well as an option that maximizes on-site parking.

  Maximized parking on-site creates 100-115 parking spaces for the facility, which is likely adequate for peak parking demands. Additionally, these options included 10-foot wide by 20-foot long (10'Wx20'L) parking spaces.

  Schematic Layouts for parking are included in Attachment D.

- **Drainage:**
  On-site drainage, specifically within the parking areas will need to be collected, treated and discharged in accordance with New Hampshire Department of Environmental Services requirements. It is likely that a series of catch basins will collect runoff within paved areas and discharge to an infiltration method. These infiltration methods could include drywell basins attached to each catch basin or a subsurface chamber system under the parking lot. These considerations will be made during the design process.

- **Septic System:**
  A new septic system will need to be installed at the development. It is likely that the location of the current system provides the most desired location due to elevation compared to likely finished floor elevations. Considering the anticipated peak use is likely during the summer when there are close to 200 children plus staff at the facility, HEB completed a preliminary review of septic needs based on 200 people. It can be anticipated that the new system will include the following:
  - 4,000-gallon concrete septic tank
  - 1,500-square foot leach field (constructed of concrete chambers).

- **Water:**
  Given the limited amount of information available for the existing well. HEB recommends the installation of a new well and a non-community water system in accordance with NHDES requirement. This new well will need to meet setbacks from infiltration systems as well as the septic system and will need to meet the requirements for system capacity for domestic needs as well as quality standards. In addition to the new well, an on-site water cistern, likely of the magnitude of 30,000 gallons, will need to be located on-site and connected to the interior fire protection system since there is no municipal water or hydrants in the vicinity of the Community Building.

  An additional consideration for the water system would be the need for irrigation at the athletic fields. Generally, year round, the grass in the field shows signs of stress from over use and limited watering. The inclusion of an irrigation system would enhance the field areas and allow for better growth of grass and limit weeds.

- **Recreation Facilities:**
  The current location of the athletic fields is likely the best location on the property. This area is generally flat and is already equipped with lighting. The facilities associated with the softball field and the large grass athletic field could remain as is in the post development condition. The only recommendation for the athletic fields would be the inclusion of an irrigation system and replanting of grass/sod. This will create a more durable playing surface with the increased use from increased programs.

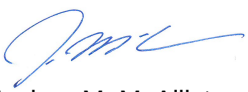
  The location of the playground is appropriate as well. It is out of the way of the athletic fields and visible from the Community Building. It is likely that the playground will be disturbed during the reconstruction of the septic system, but should easily be replaced after the system is constructed.

Disclaimer and Limitations:

The opinions and recommendations contained in this report are based on information provided by the Town of Conway and a "walk-through" field investigation performed as part of this work. No design checking calculations were performed to determine systems and components of design are in compliance with local, state, and federal requirements as well as general standards of care. No physical testing was performed. This report does not address any other part of the development other than those mentioned, nor does it provide any warranty, either express or implied.

Should you have any additional questions or comments, or if HEB can be of additional service, please do not hesitate to contact me at (603) 356-6936.

Sincerely,
HEB Engineers, Inc.



Joshua M. McAllister, PE
Senior Civil Engineer

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APPENDIX A

Water Quality Testing Results

Public Drinking Water System Report

PWS ID: 515010

System Name and Address: CONWAY COMMUNITY BLDG
RTE 302
CTR CONWAY
CONWAY

Mapit

System Type: NON-TRANSIENT NON-COMMUNITY

System Category: WORKPLACE (NOT COMMERCIAL OR INDUSTRIAL)

System Status: Active Startup Date:

Population Served: 50 Service Connections: 3

System: Open: JANUARY Close: DECEMBER

Contacts (2)

Type	Name and Address	Phone	Primary Contact
OWNER	TOWN OF CONWAY PAUL DEGLIANGELI 1634 E MAIN ST CENTER CONWAY NH 03813	603-447-3855	NO
PRIMARY OPERATOR	FX LYONS INC FRANCIS LYONS PO BOX 280 INTERVALE NH 03845	603-356-6767	YES

Lead and Copper 90th Percentile (10)

Compliance Begin Date	Frequency	Monitoring Round	Lead 90th Percentile	Copper 90th Percentile	Calculated Date
01/01/2016	Triennial (once every 3 yrs.)	10	.022	.276	09/21/2016
01/01/2013	Triennial (once every 3 yrs.)	9	.003	.29	10/09/2013
01/01/2010	Triennial (once every 3 yrs.)	8	.003	.26	10/01/2010
01/01/2007	Triennial (once every 3 yrs.)	7	.005	.14	10/03/2007
01/01/2004	Triennial (once every 3 yrs.)	6	.005	.14	09/27/2004
01/01/2001	Annual	5	.005	.05	01/08/2002
01/01/2000	Annual	4	.005	.165	01/25/2001
01/01/1999	Annual	3	.006	.228	01/21/2000
01/01/1998	Semi-Annual	2	.005	.215	11/23/1998
07/01/1997	Semi-Annual	1	.005	.225	01/12/1998

Samples (89)

Note: Only samples processed by laboratories that report samples electronically are shown here.

Collected Date	Sampling Location	Sample Number	Sample Type	Laboratory
09/12/2017	001-MENS LAV BASEMENT	1709-01228-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
03/07/2017	001-MENS LAV BASEMENT	1703-00573-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
01/24/2017	001-BRW /10' SE OF N CORNER OF BUILDING	1701-01975-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
01/24/2017	001-BRW /10' SE OF N CORNER OF BUILDING	1701-01976-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
12/13/2016	G1-BRW /10' NOF NE CNR OF BLDG	1612-01054-001	LCR WATER QUALITY PARAMETERS	GRANITE STATE ANALYTICAL SERVICES LLC
12/13/2016	O-1-KITCHEN	1612-01056-001	LCR WATER QUALITY PARAMETERS	GRANITE STATE ANALYTICAL SERVICES LLC

PWS ID: 515010

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System: Open: JANUARY Close: DECEMBER

Samples (89)

Note: Only samples processed by laboratories that report samples electronically are shown here.

Collected Date	Sampling Location	Sample Number	Sample Type	Laboratory
11/01/2016	G1-RW /10' NOF NE CNR OF BLDG	1611-00126-001	LCR WATER QUALITY PARAMETERS	GRANITE STATE ANALYTICAL SERVICES LLC
11/01/2016	O-1-KITCHEN	1611-00128-001	LCR WATER QUALITY PARAMETERS	GRANITE STATE ANALYTICAL SERVICES LLC
09/20/2016	001-MENS LAV BASEMENT	1609-02029-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
09/20/2016	O-1-COMMUNITY BLDG KITCHEN	1609-02032-001	GENERAL SYSTEM EVALUATION SAMP	GRANITE STATE ANALYTICAL SERVICES LLC
08/25/2016	001-BOYS LAVATORY AT GYM	1608-02908-001	LEAD AND COPPER RULE	GRANITE STATE ANALYTICAL SERVICES LLC
08/25/2016	002-GIRLS LAVATORY AT GYM	1608-02908-002	LEAD AND COPPER RULE	GRANITE STATE ANALYTICAL SERVICES LLC
08/25/2016	003-2ND LEVEL LAVATORY CLOSEST TO STAIRS	1608-02908-003	LEAD AND COPPER RULE	GRANITE STATE ANALYTICAL SERVICES LLC
08/25/2016	004-2ND LEVEL LAVATORY CLOSEST TO REAR EXIT	1608-02908-004	LEAD AND COPPER RULE	GRANITE STATE ANALYTICAL SERVICES LLC
08/25/2016	005-CLASSROOM SINK AT SOUTH EAST CLASSROOM	1608-02908-005	LEAD AND COPPER RULE	GRANITE STATE ANALYTICAL SERVICES LLC
03/01/2016	001-MENS LAV BASEMENT	1603-00101-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
02/22/2016	001-BRW /10' SE OF N CORNER OF BUILDING	1602-01490-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
02/22/2016	001-BRW /10' SE OF N CORNER OF BUILDING	1602-01494-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
02/22/2016	001-BRW /10' SE OF N CORNER OF BUILDING	1602-01495-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
09/02/2015	001-MENS LAV BASEMENT	1509-00240-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
03/03/2015	001-MENS LAV BASEMENT	1503-00140-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
02/24/2015	001-BRW /10' SE OF N CORNER OF BUILDING	1502-00950-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
01/27/2015	001-BRW /10' SE OF N CORNER OF BUILDING	1501-01347-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
09/03/2014	001-MENS LAV BASEMENT	1409-00198-001	TOTAL COLIFORM RULE	GRANITE STATE ANALYTICAL SERVICES LLC
03/19/2014	001-MENS LAV BASEMENT	212713	TOTAL COLIFORM RULE	A & L LABORATORY
01/27/2014	001-BRW /10' SE OF N CORNER OF BUILDING	1401-00656-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
01/27/2014	001-BRW /10' SE OF N CORNER OF BUILDING	1401-00657-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL SERVICES LLC
09/23/2013	001-BOYS LAVATORY AT GYM	208512	LEAD AND COPPER RULE	A & L LABORATORY
09/23/2013	002-GIRLS LAVATORY AT GYM	208513	LEAD AND COPPER RULE	A & L LABORATORY
09/23/2013	003-2ND LEVEL LAVATORY CLOSEST TO STAIRS	208514	LEAD AND COPPER RULE	A & L LABORATORY
09/23/2013	004-2ND LEVEL LAVATORY CLOSEST TO REAR EXIT	208515	LEAD AND COPPER RULE	A & L LABORATORY

PWS ID: 515010

System Name and Address: CONWAY COMMUNITY BLDG
RTE 302
CTR CONWAY
CONWAY

Mapit

System Type: NON-TRANSIENT NON-COMMUNITY

System Category: WORKPLACE (NOT COMMERCIAL OR INDUSTRIAL)

System Status: Active Startup Date:

Population Served: 50 Service Connections: 3

System: Open: JANUARY Close: DECEMBER

Samples (89)

Note: Only samples processed by laboratories that report samples electronically are shown here.

Collected Date	Sampling Location	Sample Number	Sample Type	Laboratory
09/23/2013	005-CLASSROOM SINK AT SOUTH EAST CLASSROOM	208516	LEAD AND COPPER RULE	A & L LABORATORY
09/05/2013	001-MENS LAV BASEMENT	207451	TOTAL COLIFORM RULE	A & L LABORATORY
03/11/2013	001-MENS LAV BASEMENT	200579	TOTAL COLIFORM RULE	A & L LABORATORY
02/25/2013	001-BRW/10' SE OF N CORNER OF BUILDING	1302-00568-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
02/25/2013	001-BRW/10' SE OF N CORNER OF BUILDING	1302-00569-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
02/25/2013	001-BRW/10' SE OF N CORNER OF BUILDING	1302-00570-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
02/25/2013	001-BRW/10' SE OF N CORNER OF BUILDING	1302-00571-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
09/04/2012	001-MENS LAV BASEMENT	195377	TOTAL COLIFORM RULE	A & L LABORATORY
03/12/2012	001-BRW/10' SE OF N CORNER OF BUILDING	1203-00290-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
03/12/2012	001-BRW/10' SE OF N CORNER OF BUILDING	1203-00291-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
03/05/2012	001-MENS LAV BASEMENT	188297	TOTAL COLIFORM RULE	A & L LABORATORY
09/08/2011	001-MENS LAV BASEMENT	183316	TOTAL COLIFORM RULE	A & L LABORATORY
04/26/2011	0-1-BRW/ 10' SE OF N CORNER OF BUILDING	1104200-01	GENERAL SYSTEM EVALUATION SAMP	AQUARIAN ANALYTICAL INC
03/01/2011	001-MENS LAV BASEMENT	176820	TOTAL COLIFORM RULE	A & L LABORATORY
01/24/2011	001-BRW/10' SE OF N CORNER OF BUILDING	1101-00412-001	CHEMICAL MONITORING	GRANITE STATE ANALYTICAL INC
01/24/2011	001-BRW /10' SE OF N CORNER OF BUILDING	176079	CHEMICAL MONITORING	A & L LABORATORY
09/02/2010	001-MENS LAV BASEMENT	172082	TOTAL COLIFORM RULE	A & L LABORATORY
08/22/2010	001-BOYS LAVATORY AT GYM	171993	LEAD AND COPPER RULE	A & L LABORATORY
08/22/2010	002-GIRLS LAVATORY AT GYM	171994	LEAD AND COPPER RULE	A & L LABORATORY
08/22/2010	003-2ND LEVEL LAVATORY CLOSEST TO STAIRS	171995	LEAD AND COPPER RULE	A & L LABORATORY
08/22/2010	004-2ND LEVEL LAVATORY CLOSEST TO REAR EXIT	171996	LEAD AND COPPER RULE	A & L LABORATORY
08/22/2010	005-CLASSROOM SINK AT SOUTH EAST CLASSROOM	171997	LEAD AND COPPER RULE	A & L LABORATORY
01/09/2006	BRW /10' SE OF N CORNER OF BLDG	B2973-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/09/2006	BRW /10' SE OF N CORNER OF BLDG	B2973-2	SDWA NITRATE/NITRITE	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
10/17/2005	BRW 10' SE OF N CORNER OF BLDG	B66-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
07/25/2005	BRW 10' SE OF N CORNER OF BLDG	A94373-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY

PWS ID: 515010

System Name and Address: CONWAY COMMUNITY BLDG
RTE 302
CTR CONWAY
CONWAY

Mapit

System Type: NON-TRANSIENT NON-COMMUNITY

System Category: WORKPLACE (NOT COMMERCIAL OR INDUSTRIAL)

System Status: Active Startup Date:

Population Served: 50 Service Connections: 3

System: Open: JANUARY Close: DECEMBER

Samples (89)

Note: Only samples processed by laboratories that report samples electronically are shown here.

Collected Date	Sampling Location	Sample Number	Sample Type	Laboratory
04/18/2005	BRW 10' SE OF N CORNER OF BLDG	A88888-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/10/2005	BRW 10' SE OF N CORNER OF BLDG	A85484-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/10/2005	BRW 10' SE OF N CORNER OF BLDG	A85484-2	SDWA NITRATE/NITRITE	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
10/25/2004	BRW 10' SE OF N CORNER OF BLDG	A82902-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
07/12/2004	001 BRW 10' SE OF N CORNER OF BLDG	A77134-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
04/26/2004	BRW 10' SE OF N CORNER OF BLDG	A72881-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/19/2004	BRW 10' SE OF N CORNER OF BLDG	A69202-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/19/2004	BRW 10' SE OF N CORNER OF BLDG	A69202-2	SDWA INORGANICS	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
08/18/2003	BRW 10' SE OF N CORNER OF BLDG	A62817-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
05/19/2003	001 PUMPHOUSE TAP	A57128-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
02/17/2003	BRW 10' SE OF N CORNER OF BLDG	A53427-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
02/17/2003	BRW 10' SE OF N CORNER OF BLDG	A53427-2	SDWA NITRATE/NITRITE	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
10/09/2002	BRW 10' SE OF N CORNER OF BLDG	A48870-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
07/01/2002	BRW 10' SE OF N CORNER OF BLDG	A42898-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
05/13/2002	BRW 10' SE OF N CORNER OF BLDG	A40092-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
04/23/2002	BRW 10' SE OF N CORNER OF BLDG	A39124-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/14/2002	BRW 10' SE OF N CORNER OF BLDG	A35418-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/14/2002	BRW 10' SE OF N CORNER OF BLDG	A35418-2	SDWA NITRATE/NITRITE	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/14/2002	BRW 10' SE OF N CORNER OF BLDG	A35418-3	SDWA RADIOLOGICAL	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
11/19/2001	BRW 10' SE OF N CORNER OF BLDG	A33386-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
09/25/2001	BRW 10' SE OF N CORNER OF BLDG	A31170-1	METHYL-T-BUTYL ETHER	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/03/2001	BRW 10' SE OF N CORNER OF BLDG	A18073-3	SDWA INORGANICS	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/02/2001	BRW 10' SE OF N CORNER OF BLDG	A18073-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/02/2001	BRW 10' SE OF N CORNER OF BLDG	A18073-2	SDWA-PEST	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
02/23/2000	BRW #1,10'SE OF N CORNER OF BLDG	A1988-1	SDWA-PEST	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
02/21/2000	BRW 10' SE OF N CORNER OF BLDG	A1851-1	SDWA NITRATE/NITRITE	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
01/25/2000	BRW 1 10' SE OF N CORNER OF BLDG	A1012-1	SDWA-VOA	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY

Public Drinking Water System Report

PWS ID: 515010

System Name and Address: CONWAY COMMUNITY BLDG
RTE 302
CTR CONWAY
CONWAY

Mapit

System Type: NON-TRANSIENT NON-COMMUNITY

System Category: WORKPLACE (NOT COMMERCIAL OR INDUSTRIAL)

System Status: Active Startup Date:

Population Served: 50 Service Connections: 3

System: Open: JANUARY Close: DECEMBER

Samples (89)

Note: Only samples processed by laboratories that report samples electronically are shown here.

Collected Date	Sampling Location	Sample Number	Sample Type	Laboratory
12/02/1999	BOYS LAVATORY AT LOWER LEVEL	L91713-1	PB/CU	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
12/02/1999	GIRLS LAVATORY AT LOWER LEVEL	L91713-2	PB/CU	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
12/02/1999	2ND LEVEL LAVATORY CLOSEST TO STAIRS	L91713-3	PB/CU	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
12/02/1999	2ND LEVEL LAVATORY CLOSEST TO REAR EXIT	L91713-4	PB/CU	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY
10/21/1999	BASEMENT MEN'S ROOM	L89775-1	SDWA RADIOLOGICAL	NEW HAMPSHIRE DEPT OF ENVIRONMENTAL SERVICES LABORATORY

Violations (1)

Violation Description	Contaminant or Rule	Violation Month	Violation Year	Begin Date	Returned to Compliance	Regulator
OCCT INSTALLATION /DEMONSTRATION	LEAD AND COPPER RULE	9	2017	09/23/2017		FEDERAL

APPENDIX B

ERF+A Site Plan, Floor Plan, and Sections dated July 11, 1977
ERF+A Plumbing Plan Diagrams and Details dated July 11, 1977
Approval for Construction dated August 28, 1977

PINE TREE
ELEMENTARY SCHOOL
CENTER CONWAY
NEW HAMPSHIRE

RECEIVED
JUL 13 1977
WATER SUPPLY & POLLUTION CONTROL COMMISSION

EARL R. FLANSBURGH & ASSOC.
ARCHITECTS 14 STORY ST.
CAMBRIDGE, MASS. 876 6440

Earl R. Flansburgh & Associates, Inc.
Landscape Architects

Chapin Associates, Inc.
Structural Engineers

BR+A Consulting Engineers, Inc.
Mechanical Plumbing, & Electrical Consultants

Paine Construction Services, Inc.
Cost Consultant

Ronald P. Hirtle Associates
Food Service Consultants

NOTES

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND RELATIONS TO OTHER WORK BEFORE FABRICATION AND/OR INSTALLATION.

ALL NOTES ON THIS DRAWING ARE TYPICAL AND APPLY EQUALLY TO ALL COMPARABLE CONDITIONS

REVISIONS

DATE JULY 11, 1977
DRAWN BY KRS/MG CHECKED BY A.L.
SCALE AS NOTED

erf+a

REVIEWED AND APPROVED
IN ACCORDANCE WITH THE
REQUIREMENTS OF THE
NEW HAMPSHIRE
WATER SUPPLY & POLLUTION
CONTROL COMMISSION
Signed Louis Gadbois
Date 8-26-77

SITE PLAN, FLOOR PLAN, ELEVATIONS AND SECTIONS

A1

SOUTH ELEV.
SCALE: 1/8" = 1'-0"

CLERESTORY END ELEVATION
SCALE: 1/8" = 1'-0"

WEST ELEV.
SCALE: 1/8" = 1'-0"

SOUTHWEST ELEV.
SCALE: 1/8" = 1'-0"

NORTHEAST ELEV.
SCALE: 1/8" = 1'-0"

EAST ELEV.
SCALE: 1/8" = 1'-0"

NORTH ELEV.
SCALE: 1/8" = 1'-0"

SECTION A-A
SCALE: 1/8" = 1'-0"

SECTION B-B
SCALE: 1/8" = 1'-0"

SECTION C-C
SCALE: 1/8" = 1'-0"

PINE TREE SITE PLAN
SCALE: 1"=40'-0"

NOTE:
ALL SURVEY & TYPOGRAPHIC INFORMATION BY:
THADDEUS TURNER SURVEYS INC.
CENTER CONWAY, N.H. 75515

LEGEND

100	EXISTING CONTOUR
100	PROPOSED CONTOUR
1.450	SPOT GRADE
TG	TOP OF SLOPE
BG	BOTTOM OF SLOPE
FF	FINISHED FLOOR
MH	MANHOLE
	CONTRACT LIMIT LINE
	SNOW FENCE
	GRAVEL SURFACE TO BE REMOVED TO MIN. DEPT. OF PAVEMENT TO BE REMOVED
	SNOW FENCE PLACED 8 MIN. DISTANCE FROM TRUNK FOR 1" CALIPER EXISTING TREE

NOTE:
CONSTRUCTION ACCESS DIRECT FROM STREET, PAVING TEMPORARILY AS NECESSARY

SITE DETAIL
SCALE: 3/8"=1'-0"

SECTION
(DRIVING DETAIL)
SCALE: 1"=1'-0"

TYPICAL STOOP DETAIL
NO SCALE

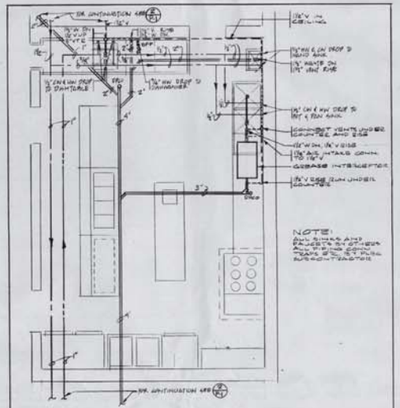
SECTION
SCALE: 1"=1'-0"

FLOOR PLAN
SCALE: 1/8" = 1'-0"

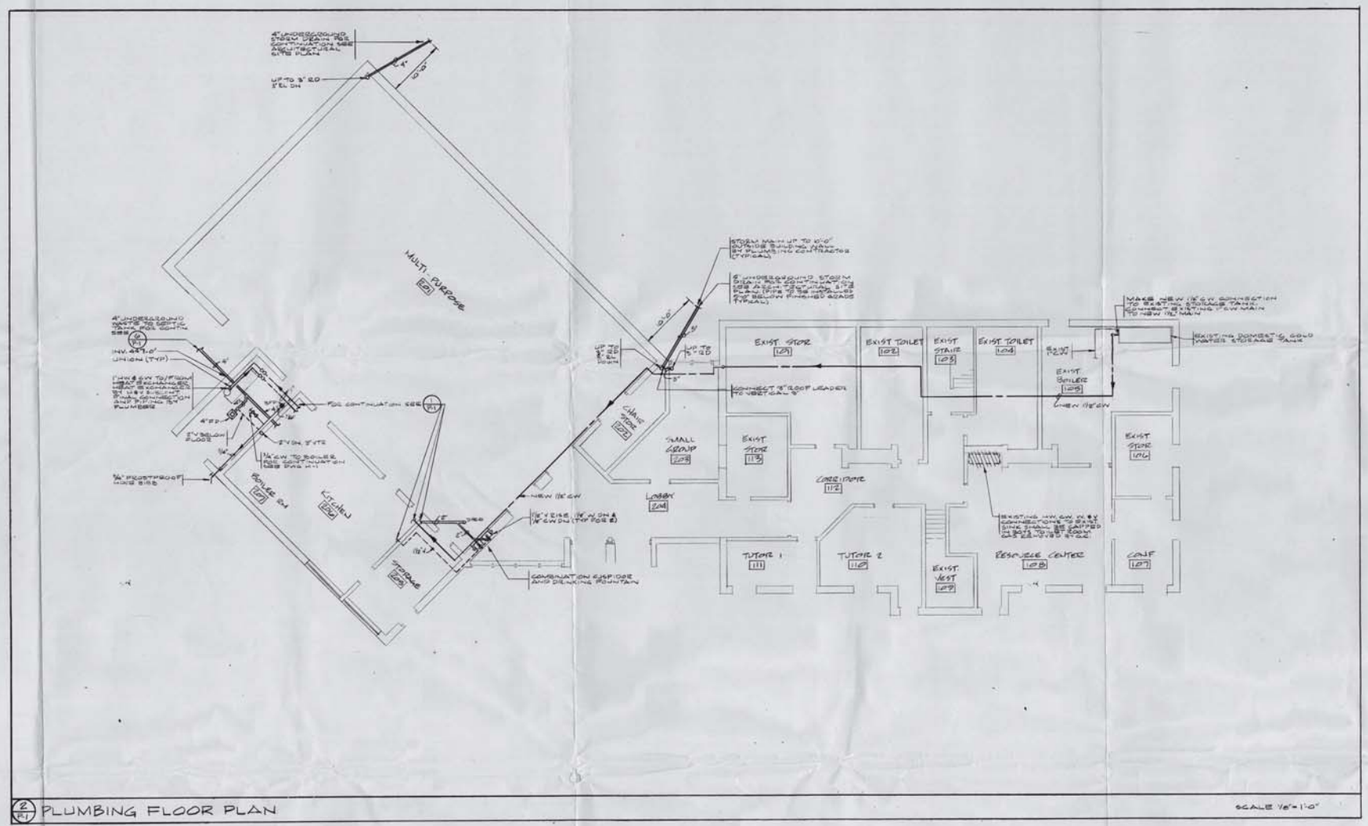
LEGEND
EXISTING TO REMAIN
EXISTING TO BE REMOVED
NEW C.M.U. CONSTRUCTION
NEW 2x4" FRAMING W/ LAYERS 5/8" GYP. BD. EACH SIDE & ACOUS. INSUL.
NEW 2x6" FRAMING W/ 1" SHEATHING BOARD
NEW 2x6" FRAMING W/ 2 LAYERS 5/8" GYP. BD. EACH SIDE & ACOUS. INSUL.
F.E. TYPE A - CARBON DIOXIDE FIRE EXTINGUISHER
F.E. TYPE B - DRY CHEMICAL

PLUMBING SYMBOL LIST

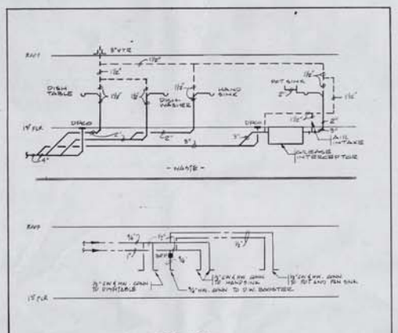
SAN — SANITARY PIPE UNDERGROUND
ST — STORM PIPE UNDERGROUND
V — VENT
CW — COLD WATER
HW — HOT WATER
FD — FLOOR DRAIN
CO — TOILET PIPE CLEAN OUT
1/8"/FT. — SLOPE IN INCHES PER FOOT
GV — GATE VALVE
MH — NEW MANHOLE
NTS — NOT TO SCALE
(P-1) — SEE DETAIL 1, DWG. P-1
VTR — VENT THRU ROOF
DIRECTION OF FLOW
FD — FLOOR DRAIN
RD — ROOF DRAIN
HB — HOSE BIBB
BFP — BACKFLOW PREVENTOR



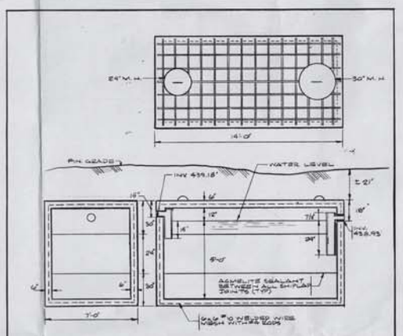
(1/P-1) KITCHEN PLUMBING LAYOUT SCALE 3/8" = 1'-0"



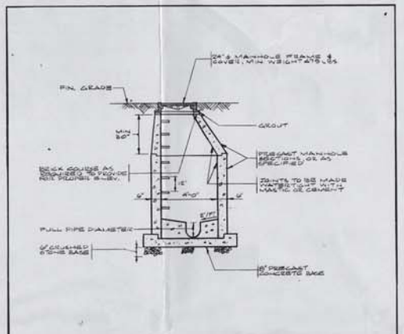
(2/P-1) PLUMBING FLOOR PLAN SCALE 1/8" = 1'-0"



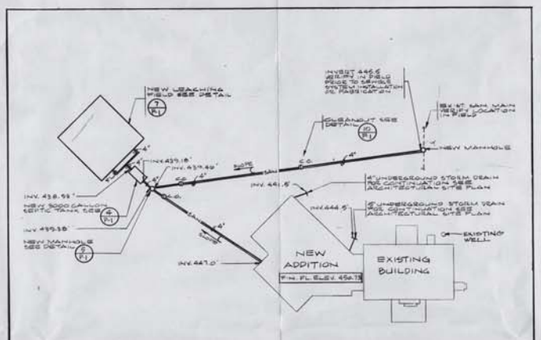
(3/P-1) WATER SUPPLY & WASTE RISER DIAGRAMS N.T.S.



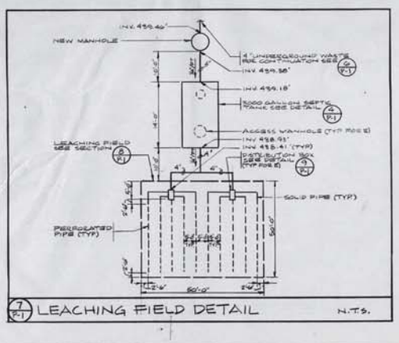
(4/P-1) SEPTIC TANK DETAIL N.T.S.



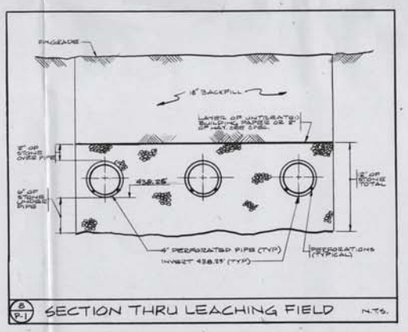
(5/P-1) MANHOLE DETAIL N.T.S.



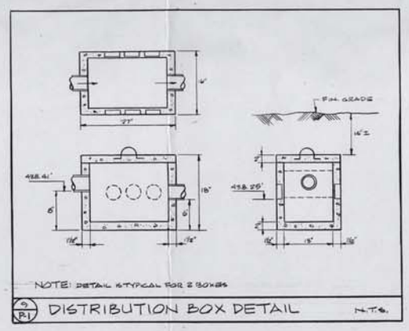
(6/P-1) SITE PLAN SCALE: 1" = 40'



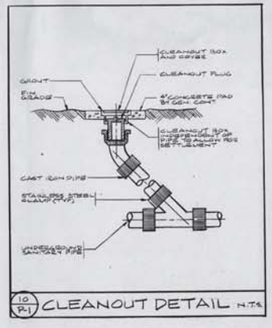
(7/P-1) LEACHING FIELD DETAIL N.T.S.



(8/P-1) SECTION THRU LEACHING FIELD N.T.S.



(9/P-1) DISTRIBUTION BOX DETAIL N.T.S.



(10/P-1) CLEANOUT DETAIL N.T.S.

PINE TREE
ELEMENTARY SCHOOL
CENTER CONWAY
NEW HAMPSHIRE

EARL R. FLANSBURGH & ASSOC.
ARCHITECTS 14 STORY ST.
CAMBRIDGE, MASS. 876 6440

Earl R. Flansburgh & Associates, Inc.
Landscape Architects

Chapin Associates, Inc.
Structural Engineers

BR+A Consulting Engineers, Inc.
Mechanical, Plumbing, & Electrical Consultants

Paine Construction Services, Inc.
Cost Consultant

Ronald P. Hirtle Associates
Food Service Consultants

NOTES

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND RELATIONS TO OTHER WORK BEFORE FABRICATION AND/OR INSTALLATION.

ALL NOTES ON THIS DRAWING ARE TYPICAL AND APPLY EQUALLY TO ALL COMPARABLE CONDITIONS

RECEIVED
JUL 27 1977
WATER QUALITY & POLLUTION CONTROL COMMISSION

REVISIONS
0 July 26, 1977

DATE JULY 11, 1977
DRAWN BY MAC CHECKED BY THA
SCALE AS NOTED

erf+a

PLUMBING PLAN DIAGRAMS AND DETAILS

P-1

APPROVAL FOR CONSTRUCTION

50/15

THE PLANS AND SPECIFICATIONS FOR SEWAGE OR WASTE DISPOSAL SYSTEM SUBMITTED FOR:

APPROVAL # [illegible]

N.H. Water Supply & Pollution Control Commission
Prescott Park, 105 Loudon Rd., Concord, NH 03301

Owner:

Pine Tree Elementary School
Center Conway
New Hampshire 03813

LOT NUMBERS:
SUBD. APPVL.#:
SUBD. NAME:

TYPE OF SYSTEM: EXISTING ELEMENTARY SCHOOL WITH PROPOSED ADDITION: [illegible] STUDENTS [illegible] GAL/DAY

TOWN/CITY LOCATION: CONWAY, NH
STREET LOCATION: ROUTES 113 & [illegible]

Copy of Plan & Approval sent to:

Richard Shinnock
Water Works Department
North Conway, NH [illegible]

By Applicant:

Earl R. Flansburgh & Assoc.
14 Story St.
Cambridge, MA 02138

PLEASE POST IN A CONSPICUOUS PLACE DURING CONSTRUCTION.

THIS APPROVAL DOES NOT SUPERCEDE ANY EQUIVALENT OR MORE STRINGENT LOCAL ORDINANCES OR REGULATIONS. STATE STANDARDS ARE MINIMAL AND MUST BE MET STATEWIDE.

WHITE= Applicant's; YELLOW= Town's; BLUE= NHWS&PCC file; GOLD= Owner's - (No Action Required)

NOTE: (XX) Gravity system
( ) Gravity system to septic tank and effluent pump chamber
with disposal system to be constructed on a properly prepared base.
Bed bottom to be set (XX) no deeper than 36 " below the original ground
( ) no less than _____" above the original ground
( ) no lower than the original ground
to maintain ( ) _____' minimum above the reported seasonal high water table.
( ) _____' minimum above the reported ledge depth.
( ) _____' minimum above the reported impermeable soil.
( ) Fill required to prepare disposal area should be a medium to coarse textured sand (0.5 to 1.0 mm).

CONDITIONS: Leach bed bottom should be at least 4' above the high ground water table.

Well water to be successfully tested for quality prior to issuance of Operational Approval.

259-13

are hereby approved on this date: [illegible]

By: [illegible]
N.H. Water Supply and Pollution Control Commission Staff

Revised 5/1/77

(OVER)

APPENDIX IV

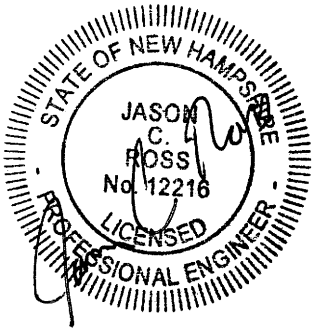
EXISTING STRUCTURAL OBSERVATIONS AND CONDITIONS ASSESSMENT

STRUCTURAL ASSESSMENT REPORT

CONWAY RECREATION CENTER
CONWAY
NEW HAMPSHIRE

Prepared for:
Alba Architects

October 6, 2017



Prepared by:
HEB Engineers, Inc.

Project #2017-067

HEB Engineers, Inc. • **www.hebengineers.com**
New Hampshire: Office (603) 356-6936 • Fax (603) 356-7715 • PO Box 440 • 2605 White Mountain Highway • No. Conway, NH 03860
Maine: Office (207) 803-8265 • PO Box 343 • 103 Main Street • Suite 6 • Bridgton, ME 04009

October 6, 2017

Stuart Anderson, AIA
Alba Architects
137 Daniel Webster Highway
North Woodstock, NH 03262

Re: Conway Recreation Center, Conway, NH
Site Condition Summary Report
HEB Project #2017-067

Dear Stuart,

This Structural Assessment Letter Report has been prepared by HEB Engineers, Inc. (HEB) to address the concerns about the structural integrity of the Conway Recreation Center building located in Conway, New Hampshire. On August 24, 2017, I visited the building to observe the existing structure. Presented in this Letter Report are my field observations and recommendations. This work was performed in accordance with our Letter Agreement, dated August 9, 2017 and signed on August 22, 2017.

Field Observations & Plan Review:

The existing, building was constructed at two different times. The original building was a wood framed schoolhouse that measured approximately 46 feet by 76 feet (46'x76') (see Photo 1). A gymnasium, kitchen, and lobby addition was constructed in 1977 with CMU walls and a combination of flat steel joists and sloped sawn lumber rafters for the roofs (see Photo 2). Design drawings, prepared by Earl R. Flansburgh & Assoc., were found for this addition and reviewed.

The foundations of the building were all constructed with cast-in-place concrete. The concrete that was visible appeared to be in good condition and no major cracks were observed. The reinforcing of the original building is unknown as no drawings are available. The design drawings show that the foundations in the gymnasium wing are adequately reinforced.

The floors of the original building were observed to be bouncy when walked upon. The framing was only visible at a few select locations due to the ceiling finishes. It appears that the floors are constructed primarily with full sawn 2x12 joists spaced at 16 inches on-center. The framing that was observed was in good condition.

The hipped roof of the original building is framed with a combination of full sawn 2x6 rafters and 6x8 timber beams supported by diagonal columns (see Photo 3). The roof framing appears to be in good condition. No rotten or broken rafters were observed. In a few locations, the timber beams appeared to be inadequately supported.

The CMU walls in the gymnasium wing appear to be in good condition; however, there are several small penetrations in the wall that were never properly filled. The design drawings show that these walls are only minimally reinforced. The steel joists over the gymnasium appear to be in good condition (see Photo 4).

Structural Analysis:

The structural analysis of the building was based on the NH State Building Code, the 2009 International Building Code (IBC-2009) and the International Existing Building Code (IEBC-2009). A ground snow load of 95 pounds per square foot (psf) for Conway, NH, was used based on the Cold Regions Research and Engineering Laboratory (CRREL) report, Ground Snow Loads for New Hampshire, February 2002. Based on the site location, exposure factor, thermal factor, and importance factor, this results in a flat roof snow load of **73 psf**.

The following live loads are required based on Table 4-1 of ASCE7-05:

School Classrooms	40 psf
Corridors above first floor	80 psf
Stairs and Exit Ways	100 psf

Timber analysis was based on the AF&PA National Design Specification (NDS) for Wood Construction, 2005 Edition.

Notes on the 1977 structural drawings show that roofs in the gymnasium wing were designed for a 50 psf, roof snow load. Calculations show that the original roof has a roof snow load capacity of approximately 50 psf

Conclusions:

In general, the building appears to be in fairly good condition. The existing roofs do not meet current snow load requirements but do not show signs of being overstressed. Based on the International Existing Building Code (IEBC-2009), if there is no proposed change in use or major renovations, and the existing structure does not show any sign of overstress, there is no need to upgrade the roof framing to meet the current load requirements.

The floors of the original building are bouncy and may not all meet the load capacity requirements for the current use. Additional investigations will be required to determine the adequacy of the existing floor system.

We recommend that the structure should be monitored for areas of excessive deflection or movement.

Disclaimer:

The opinions and recommendations contained in this report are based on a "walk-through" field investigation performed as part of this work. Only limited calculations were performed to determine if certain structural members are in compliance with adopted building codes and no physical testing was performed. This report does not address any other part of the structure other than those mentioned, nor does it provide any warranty, either express or implied.

Please do not hesitate to contact us if you have any questions or need any additional information.

Sincerely,
HEB Engineers, Inc.

Jason C. Ross, PE
Senior Structural Engineer

Attachment A – Photo Pages

Copy: File

P:\Jobs\2017\2017-067 Alba - Conway Recreation Center, Conway, NH\Reports\Structural Assessment\Conway Rec Structural Assessment Report 10-06-17.docx

ATTACHMENT A

Photo Pages

Photo 1: Original building.

Photo 2: Addition built in 1977.

Photo 3: Roof framing.

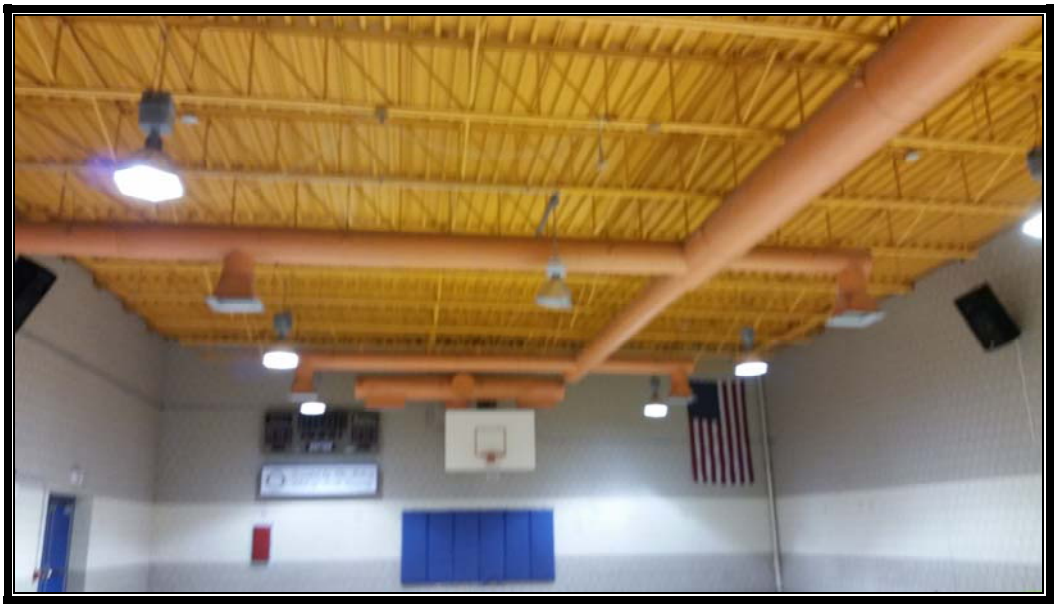


Photo 4: Steel joists over gymnasium.

APPENDIX V

EXISTING MEP SYSTEMS OBSERVATIONS AND CONDITIONS ASSESSMENT

YEATON ASSOCIATES, INC.

MEP Engineering Assessment	
Project Name:	**Conway Recreation Center**
Project Location:	**Conway, New Hampshire**
Document Date:	**September 18, 2017**
YA Project #:	**17076ME**

Conway Recreation Center - 1808 East Main Street, Center Conway, New Hampshire

Executive Summary

On Wednesday, August 22, 2017 we met on site at Conway Recreational Center, 1808 East Main Street, in Center Conway, New Hampshire to assess the Mechanical, Electrical and Plumbing (MEP) systems and equipment serving the existing building, and to provide recommendations for retrofit/replacement recommendations. The following is a summary of our findings and recommendations.

66 Jackson St, Littleton, NH 03561 | 40 So. River Rd #35, Bedford, NH 03110 | Ph: 603.444.6578 | www.yeatonassociates.com

General Description

1. Building Description:
   a. The building comprises two structures joined by a connector. The older two-story clapboard structure built circa 1900, was formerly used as the Pine Tree Elementary School (Clapboard Structure). The Lower Level is mostly below grade, and consists of an office, the mechanical room, several small storage rooms, a laundry room, a large equipment storage room, and a large game room/arts classroom. The upper floor consists of four large rooms that were originally classrooms. They are currently used as a kitchen, a lounge, and two game rooms. There are three (3) restrooms and stairwell and corridor. The total gross square footage of the two floors is 7,900 Sq. Ft.
   b. The connector was constructed in 1977 as an addition to the Pine Tree Elementary School, and consists of an entry lobby and small office on the lower level floor, and mechanical/storage space which houses the HVAC system serving the Gymnasium. It is built on slab, with a gross area of 792 sq. ft.
   c. The gymnasium was constructed in 1977. It consists of the main recreational area (basketball court) as well as a row of adjacent spaces along the west side. These have been remodeled, and currently the adjacent spaces comprise a boys' bathroom, a girls' bathroom, a staff bath/shower, a housekeeping space, an office, and the original mechanical room. The total gross area is 3,402 sq. ft.

2. Building Usage and Occupancy:
   a. The building has four full-time municipal employees who occupy the four offices.
   b. The building hosts many recreational programs. A portion of them are as follows.
      - During a summer 8-week program, each day 100 to 150 children occupy the premises from 8 Am – 5 PM, using indoor spaces for arts and crafts, outdoor spaces, and bathrooms if available.
      - The Original Section is used during fall, winter and spring as a Teen Center, including Friday and Saturday 5-9:30; Wednesday and Thursday from 5-8:30 pm 30 per night. These involve bathroom and kitchen usage.
      - The facility spaces including bathrooms are used generally for 3-season afternoon and evening sports programs including flag football, field hockey, and soccer all, girls basketball, boys basketball.

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Systems Descriptions

1. Clapboard Structure Heating Plant
   a. The Clapboard Structure is heated by a single oil-fired boiler. (Model: Buderus Logano G215/7; Serial 05178458-00-4075-0128). The boiler was manufactured in March 2004.
   b. The boiler gross output capacity is 294 MBtu/hr. Its rated efficiency is AFU=86%.
   c. Burner: Riello burner Model 40. Burner rating 1.45 – 2.95 gallons per hour.
   d. #2 fuel oil is gravity fed through 3/8 copper line below slab from 2-275 gallon oil storage tanks, also located in the mechanical room, each with its own isolation valve.
   e. Staff reports that the capacity is sufficient for good thermal comfort.
   f. Condition: The Town reports that the boiler has developed a hole in a section, and therefore requires replacement or repair. Otherwise, piping, connections, and ancillary components appear in good condition.
   g. Controls: The only sensor is an aquastat on the leaving water pipe. There is no electronic boiler controller, nor outdoor sensor, and therefore no automatic hot water temperature reset capability. Honeywell analogue control.
   h. Ventilation: There is no boiler room ventilation. The one basement window is not operable.
   i. There is no sprinkler system, and no fire extinguisher. There is lift-and-pull fire alarm in the boiler room.
   j. Breeching: 8-in galvanized steel flue pipe with barometric damper connects to an original ceramic chimney.

2. Clapboard Structure Hot Water Distribution
   a. There are 8 thermal zones; Five (5) on the upper floor, and on the lower floor. Zoning is deemed adequate for occupant comfort under current usage.
   b. Zoning utilizes eight Taco cartridge style zone circulators, which draw return water into a 2 ½ copper return header. The pumps appear in good condition.
   c. In each zone, whenever a thermostat calls for heat, the zone circulator is energized, sending hot water through the baseboard convectors located along the exterior walls of that space.
   d. Nearly all hot water hydronic piping lacks thermal insulation of any kind.

3. 1977 Addition Heating Plant:
   a. The Addition is heated by a single oil-fired boiler. (Model: Buderus Logano G215/7; Serial 05178458-00-4075-0128). This boiler was also manufactured in March 2004.
   b. Gross output 294 MBtu/hr. Net IBR Rating 256 MBH. AFU 86%
   c. Burner: Riello burner Model 40. Burner rating 1.45 – 2.95 gallons per hour.

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d. #2 fuel oil is gravity fed through 3/8 copper line below slab from 2-275 gallon oil storage tanks, also located in the mechanical room, each with its own isolation valve.
e. Capacity: Although occupants frequently observe low wintertime indoor temperatures, we believe this is due to the control and design in heat distribution system, and not the plant capacity. The plant capacity works out to 65 Btuh/sq. ft. which is probably sufficient. With that said, we recommend that the loads be calculated by a qualified engineer before replacing the boiler.
f. Condition: The piping, connections, and ancillary components appear in good condition.
g. Controls: There is an aquastat on the leaving water pipe. There are 2 outdoor sensors, as well. These are connected to a WR brand analogue controller. There appears, therefore, to be automatic hot water reset capability.
h. Ventilation: This boiler room is properly ventilated, with relief air duct terminating less than 12-in. above finished floor. There is no sprinkler system, and no fire extinguisher. There is lift-and-pull fire alarm in the boiler room.
i. Breeching: 8-in galvanized and stainless steel flue pipe with barometric damper connects through the roof, with bracket supports. The flue appears in good condition.

4. 1977 Addition Hot Water Distribution
   a. This hot water system utilizes a primary loop which circulates water through the boiler and then out to serve other branch circuits and secondary circuits in the building. The primary pumps are dual inline pumps (Model: TACO 1630, rated for approximately 40 gpm at 20 ft w.g. of head). A simple toggle switch controls each pump.
   b. The hot water mains exit the boiler room and travel above the suspended ceiling in the annex for the full length of the gymnasium. In the corner office (Michael Lane Assistance Rec. Dir.) the main line supplies a branch line which serves the corner office, and Lobby baseboard. It passes exposed into the gymnasium, and over to the storage room where the Gymnasium heating and ventilation (HV) unit, and Main Office branch circuit and Lobby wall heater branch circuit are located. In the storage room, the hot water supply and return appear to connect, closing a loop, without an apparent pressure differential control valve to maintain a specified differential pressure between supply and return. This differential pressure is normally essential for driving flow in the branch circuits just mentioned.
   c. Most primary loop piping is insulated with 1-in fibrous insulation. Branch circuits are not insulated.

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5. Clapboard Structure HVAC:
    a. Every regularly occupied space is heated by the zoned hydronic system described above. Heating elements are baseboard finned tube radiation, with 4" x 4" fins spaced 5 per inch.
    b. Baseboard sheet metal covers have fallen into advanced disrepair.
    c. The hydronic circulator serving each zone is controlled by a wall mounted electronic programmable thermostat (LUX Model PSP511).
    d. Air Conditioning: Each of the four upper level gathering rooms has been retrofitted with a single zone ductless split system. Each of the four systems consists of a 2-ton outdoor condensing unit (Mitsubishi Mr. Slim Model MU24WN) and a wall-mounted indoor evaporator fan coil unit (Mitsubishi Mr. Slim Model MS24WN). These AC systems were manufactured in 2004. These systems are nearing the end of useful life.
    e. The systems utilize refrigerant R-22. The manufacture of new equipment using R22 was banned in 2005. Since 2010, the manufacture of the refrigerant R-22 itself has been controlled, and will cease in 2020, meaning new refrigerant for use in servicing this machine cannot be procured in three years. Center Conway will have to participate in a costly used refrigerant market at that time, if the machines remain. In the meantime, its cost is rising rapidly.
    f. The Director's Office (John) is furnished with a small (approx. 6,000 Btu/hr) window mounted air conditioning unit.
    g. Each unit is controlled by a hand held remote controller. There is no wall mount thermostatic control.

6. 1977 Addition HVAC:
    a. The HV unit hot water coil is supplied by primary/secondary pumping scheme using closely spaced Tee's, off the hot water primary loop. The secondary pump is controlled by an analogue Honeywell temperature controller, with input from two sensing bulbs dangling exposed on the gymnasium wall, not far from the return air grill.
    b. Return air duct work in the mechanical room connects the return air from the Gym to the HV unit inlet mixing plenum. Outdoor air is also ducted to a mixing plenum, equipped with RA and OA mixing dampers a damper motor. The mixing damper motor is currently out of order, and the dampers are adjusted for minimal outside air (staff). Smoke detectors are located in the supply and return ducts of the unit. We were able to see the fan motor, and certain other components, which indicate that the unit is near end of life.
    c. Gymnasium exposed duct system: The exposed spiral ductwork appears in good condition. The diffusers are not protected with wire cages, and the diffuser vanes in every diffuser have been destroyed, thus creating poor air throw and distribution.

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d. The general exhaust fan serving the Gymnasium space does not function. The exterior casing is corroded.
e. Gymnasium thermal comfort in summer: The gymnasium is not air conditioned, and especially during athletic competitions when members of the community crowd the court, the court sidelines, and the lobby, hot stuffy conditions are reported. Poor thermal comfort and stuffiness could be improved by a functioning exhaust fan and functioning active control of outdoor air louvers ("economizer mode"), however this solution is only effective during mild outdoor conditions. During hotter, more humid conditions, mechanical cooling is still required.
f. Bathrooms: Heat is supplied to restrooms by the gymnasium duct systems. Therefore bathrooms are cold when the HV unit is not operating, or when the gymnasium temperature sensor is satisfied.
g. The heating system does not serve the staff restroom; thus a floor mounted electric space heater has been placed there.
h. Entry Lobby Wall Heater: The fan is manually controlled by a rotary knob which is positioned behind a grill that is secured with machine screws. Staff "never" operate the fan and it is reported to be off year-round. On the water side, we were unable to observe a control valve or controlling thermostat control valve. The sheet metal casing is badly corroded and dented.
i. Entry Lobby baseboard, and Assistant Athletic Director (Mike) Office baseboard: we were unable to observe a control valve or controlling thermostat control valve. As noted above, the branch piping circuit that supplies this heater may suffer from very low flow.
j. The Entry Lobby is reported to be uncomfortably cold throughout the winter.
k. Main Office (Cory) baseboard: A branch line off of the primary gymnasium HW supply and HW return lines in the adjacent storage room serves the Office. An electronic thermostat in the office controls a zone valve which is accessible from the adjacent mechanical space. Despite the fact that the controlling thermostat is actually in the office, the office is reported to be uncomfortably cold. As noted above, the branch piping circuit that supplies this baseboard may suffer from very low flow, because of the absence of a differential pressure valve in the primary heating loop.
l. Window mounted air conditioning units are mounted in the Main Office, Assistant Athletic Director's Office, and in the Entry Lobby. Their capacity is reported to be adequate. Their condition is near end of life. They are removed seasonally (staff).

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7. Clapboard Structure Cold Water Entrance:
   a. Water is obtained from a drilled well located immediately outside the mechanical room.
   b. Entrance is via a 2-in. iron pipe up through slab in the Mechanical Room, and transitions immediately to copper.
   c. Pressurization control is by a residential style bladder tank (Amtrol Model Well-X-Troll WX302) with 86 gallon capacity, 26 gallon drawdown. Corrosion is evident around the base of the tank. The pressure switch mounted at the base of the bladder tank starts and stops the well pump, via a GE 200 Line control. This tank controls pressure for the entire building, including the 1977 bathrooms and shower.
   d. No inline filters, nor water treatment equipment of any kind.
   e. A large riveted steel 4-ft diameter, 10-ft long cylindrical tank remains abandoned in place in the Mechanical Room. At one time it probably served as a well water receiving and pressurization tank for the elementary school. All electrical and piping connections associated with the tank are cut and abandoned.
   f. The cold water line T's, off of which a ¾-inch line serves entire Clapboard Structure (W/D, kitchen sink, 3 lavatories, and outdoor hose bib). A 2-inch branch is insulated, housed in an overhead soffit where it travels uninterrupted through the basement to the 1977 building.
   g. Cold water entrance is insulated with ½ fibrous insulation from entrance to below ceiling run, all the way to the new building.

8. Clapboard Structure Domestic Hot Water:
   a. Domestic hot water is provided using a 40 gallon electric hot water heater manufactured State Select (model P64020RS; 240 VAC). Efficiency Factor = 0.88
   b. The tank appears to be just a few years old, with no corrosion around base or anywhere else.
   c. The tank serves a domestic clothes washer, one kitchen sink, and three lavatories, all located in the Clapboard Structure.
   d. There is no domestic hot water recirculation system.

9. Clapboard Structure Plumbing Fixtures:
   a. Three bathrooms serve the Clapboard Structure. Toilets are floor mount conventional tank toilets. There are no ADA fixtures in the Clapboard Structure, that we could see (one bathroom was locked). Each bathroom has a wall-mount sink, with a hot and cold blending faucet. There are no thermostatic tempering valves on any lavatories.
   b. A small counter has been installed in the Kitchen with a surface mounted stainless steel sink, and with hot and cold blending faucet. There is no thermostatic tempering valve.

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10. 1977 Addition Cold Water Entrance:
    a. This portion of the building has no separate CW service. Water is provided by a 2-inch insulated pipe which runs from the Clapboard Structure basement Mechanical Room the length of the building to serve the Gymnasium bathrooms and custodial sink, and for boiler room system make-up water.
    b. A second bladder tank has been deployed in the utility room, for more reliable pressure upon short term demand in the lavatory area, since the line from the entrance bladder tank is very long. No corrosion is visible.

11. 1977 Addition Domestic Hot Water:
    a. Domestic hot water is provided using a 40 gallon electric hot water heater manufactured Bradford White (Model M240S6DS-1NCWW; 240 VAC). Efficiency Factor = not observed.
    b. The tank appears to be just a few years old, with no corrosion around base or anywhere else.
    c. The tank serves a one out of two lavatories in the boys' bath room, one out of two in the girls' bathroom, the custodial sink, and the staff shower and lavatory.
    d. There is no domestic hot water recirculation system.

12. 1977 Addition Plumbing Fixtures:
    a. Boys Room: Kohler urinals with Sloan motion sensing flush valves with optional push button: One flush valve operates automatically, and one requires manual operation. Two Eljer sink basins, with one ADA design, and one not. The basins are equipped with Delta motion sensing faucets. Two wall mount toilets with Sloan motion sensing flush valves, one ADA. There are no thermostatic tempering valves. Most fixtures and valves appear serviceable.
    b. Girls Room: Two Eljer basins, with one ADA design one not. The basins are equipped with Delta motion sensing faucets. Three wall mount toilets with Sloan motion sensing flush valves, one ADA. There are no thermostatic tempering valves. All fixtures and valves appear serviceable.
    c. Hot water: In each bathroom, hot water is blended with cold water upstream of the automatic valve for one of the two sinks. However, long lines from the hot water tank, plus very low flow rates, result in hot water never reaching the faucet when the sinks are used on an occasional basis.

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13. Water Supply:
    a. The well yield, as measured in sustained gallons per minute, is not sufficient for the current facility usage, according to staff. As a result, summertime outdoor activities which use water are highly restricted. The resulting depletion can become evident in the failure of toilets to refill, raising health concerns. Even without outside usage, during a summer 8-week program, 100 to 150 children occupy the premises daily, using indoor spaces, outdoor spaces. Six (6) Porta potties, pumped 2 times per week, are rented by the town.
    b. In order to serve the existing usage, a cistern and booster pump is required, and a 2nd well may be required.

14. Water Quality:
    a. <u>Sediments and dissolved minerals</u>
    There are several water quality issues at the building. Dissolved iron is extremely apparent in badly stained toilets and other fixtures. Staff report that sediments and iron deposits result in toilet flush valve failure (sticking and running). These failures have resulted in frequent and costly calls to plumber for repair. Continual toilet running has led to the well running dry more quickly than it would otherwise.
    b. <u>Toxic Metals</u>
    In September 2016, FX Lyons Water & Pump Services collected water samples from lavatories in the Clapboard Structure and in the 1977 Addition. The samples were analyzed at Granite State Analytical Services, LLC in North Conway, who measured the lead and copper concentrations. The results are that the water concentrations of lead and copper are slightly elevated above the U.S. EPA's current safe limit for schools and child care centers. If the town has not already done so, the town should contact the NH Department of Environmental Services (DES) to learn whether the Center Conway Community Building is regulated under any United States E.P.A or New Hampshire DES program, and if so, what the mandated compliance actions are. Generally, actions involve corrosion-control water treatment. This is because lead and copper enter drinking water primarily through plumbing materials. Heightened levels usually result from a combination of (a) water which has a high corrosion potential, (b) an abundance of lead solder in pipe joints that was used prior to 1986 (in 1986, the Safe Drinking Water Act banned the use of lead), and (c) buildings where water sits for a long time in the pipes, such as can happen schools and community centers.

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15. Clapboard Structure Bathroom Exhaust
    a. The Teen Center bathrooms are served by individual ceiling exhaust fans. These operate on a separate wall switch. The exhaust duct passes to an exhaust louver in the exterior wall.
    b. The Teen Center Kitchen range oven has no range hood or exhaust.

16. 1977 Addition Bathroom Exhaust
    a. The Boys Room and the Girls Room Central each have exhaust ceiling grills that are ducted to a common inline exhaust fan. Normally a central exhaust fan will operate continually during scheduled occupied hours. The exhaust fan was not operating on the day we visited. On 24-hour timer could be identified.
    b. The employee lavatory off of the Gymnasium has no exhaust.
    c. The general exhaust fan serving the Gymnasium space does not function.

17. Electrical Service Entrance
    a. The building is served overhead to a weatherhead adjacent to an upper floor window. The main service consists of a fused switch distribution panel with one fused switch serving the original service panel and the other serving the addition.
    b. The overhead service entrance conductor weatherhead is attached to the building in a way that does not satisfy current code. The separation required is a minimum of three (3) feet from any window that is designed to be opened.
    c. The electrical service appears to otherwise be in compliance with current codes.

18. Lighting
    a. Generally, the light levels in the facility appeared to be adequate for the functions of each space. The lighting is aged and will require ongoing maintenance (lamp replacement and ballast repair/replacement). The lighting is energy inefficient.
    b. Gymnasium lighting – The lighting in the gymnasium is provided with metal halide suspended fixtures. These fixtures are quite low for a gymnasium and they are not protected with wire guards.
    c. Other – The lighting throughout the facility is generally provided with linear fluorescent fixtures.

19. Emergency Lighting
    a. The emergency lighting is provided by individual emergency batter lighting units. Several were tested during the site inspection and were found to be in working order.
    b. The facility appears to have adequate interior emergency lighting to satisfy current codes.
    c. The exterior emergency lighting appears not to be compliant with current codes.

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20. Power
    a. Many of the rooms have limited convenience outlet quantity.
    b. There is some anecdotal evidence that at times, during certain functions, the branch circuits are overloaded and the circuit breaker trips. This especially true when slow cookers are in use.
    c. Many receptacles were observed as having damage or missing cover plates.

21. Facility wiring
    a. The wiring observed appears to be code compliant. There exists a mix of wiring types with Type NM (Romex), MC Cable, and conduit.
    b. The only potential code compliance issue observed is where type NM cable has been installed in attic spaces. In these cases, the installation appears not to satisfy current code requirements for protection.

22. Fire Alarm
    a. The facility is served by an addressable fire alarm system which appears to have been added at the time the addition was constructed.
    b. The overall fire alarm system detection and notification appear to satisfy current code requirements.

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Code Deficiencies

All renovations, alterations and repairs must conform to the State of NH Mechanical Code (see IMC 2009, Section 102.4). Existing features and existing equipment need not. The exception is that renovations, alterations and repairs that simultaneously: (a) are minor, and (b) done in the same manner and arrangement as existing, need not conform to the Code.

1. Mechanical Code Deficiencies
   a. The Clapboard Structure boiler room does not comply with NFPA 31 concerning combustion air openings into the space.
   b. Heating hot water lines require 1 ½ to 2 inches thermal insulation everywhere (State Energy Code). Currently, they are completely bare throughout the Clapboard Structure, and of insufficient thickness in the 1977 Addition.
   c. Each of the four ductless split system in the Clapboard Structure have efficiency levels which fall short of the State Energy Code. Moreover, as discussed, they use R -22 refrigerant which will cease to be manufactured after 2020, making servicing the units expensive or impossible.
   d. Each of the four window AC systems in the building have efficiency levels which fall short of the State Energy Code.
   e. Outdoor ventilation levels that are currently employed in the Gymnasium are considerably less than the minimum allowed for a gymnasium by State Mechanical Code. However, to avoid very high energy usage associated with high ventilation rates, the outdoor and return are dampers and damper controls would require replacement for automatic control (also code required).
   f. Gymnasium exposed duct system: Diffusers are required by the State Mechanical Code. The previously installed diffusers have been destroyed.
   m. General exhaust fan serving the Gymnasium: The exhaust fan must operate and roughly balance the outdoor air flow rate introduced into the gymnasium at all times, per the State Mechanical Code.
   n. Bathrooms: Exhaust fans must operate, either intermittently or continuously, when the building is occupied. Control of the Gymnasium bathrooms could not be identified. Automatic control or manual switching available to occupants is required per the State mechanical Code.

2. Plumbing Code Deficiencies
   a. The current pipe insulation on the domestic water piping does not meet the requirements of the International Energy Conservation Code 2009 - Chapter 5
   b. There is not an ASSE 1070 code compliant tempering valve on any ADA lavatory. This is required to make all the Toilet Rooms comply with current ADA standards.

c. Provide and install insulation for water and drain lines at all ADA lavatories. This is required to make all the Toilet Rooms comply with current ADA standards.
d. There are no ADA bathrooms on the upper floor of the Clapboard Structure that we were able to observe, despite the accessible ramp constructed at the back of the building. Note that one bathroom was locked during our visit.
e. Warm or tepid water to all lavatories in the 1977 Addition.
f. Toxic Metal: The town should contact the NH DES to learn whether the Center Conway Community Building is regulated under any United States E.P.A or New Hampshire D.E.S. program, and if so, what the mandated compliance actions are.

3. Electrical Code Deficiencies
   a. The electrical overhead service entrance does not comply with NEC Article 230. The clearance between an operable window and the weatherhead does not satisfy the minimum three (3) feet requirement.
   b. The wiring system in accessible attic spaces appears not to satisfy the NEC requirements for NM cable.

4. Building Life Safety Code Deficiencies
   a. Renovation projects on this building, which is a place of assembly, will require a fire protection system per NFPA 101, Section 4.3.6.4.
   b. Depending upon the proposed assembly occupancy level, the fire alarm system may be required to be upgraded with an emergency voice evacuation system.
   c. There is inadequate emergency egress lighting at building exits as required by NFPA 101.

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Recommendations

These recommendations relate to the current building envelop and the current building usage.

1. Heating
   a. Replace the damaged Clapboard Structure Buderus boiler with a high efficiency oil fired boiler. Utilize boiler controls which enable automatic control of hot water leaving temperature. Perform load calculations to 'right-size' the boiler (it appears to be oversized).
   b. Install NFPA code compliant natural ventilation in the Clapboard Structure boiler room. This improves energy efficiency as well safety.
   c. Provide all new baseboard convector units throughout the building.
   d. Provide and install new 1-1/2" or 2" (refer to code) thick heavy density fiberglass pipe insulation with ASJ and precut, formed molded fiberglass with PVC jacketing for all fittings to all heating hot water heating piping. This achieves code compliance and cost effective fuel savings.
   e. Remove existing gymnasium exhaust fan. Replace with variable speed exhaust fan of code compliant maximum flow rate (0.30 cfm/ft^2), and with a motor operated damper to prevent infiltration when fan is not operating. Acoustically lined exhaust ductwork for noise control. Integrate control with new ventilation unit (below).
   f. Reconfigure the hot water branch circuits in 1977 Addition serving offices, Lobby baseboard and Lobby wall heater. Replace zone valves with high efficiency zone circulators, to ensure proper flow through heating elements.
   g. Allow wheel chair users in the Clapboard Structure access to an ADA compliant bathroom on the upper floor of the building. Note, one bathroom was locked during our visit.
   h. Lobby wall heater with thermostatically controlled high efficiency unit.
   i. Provide hydronic heat to 1977 Addition bathrooms.
   j. Provide ducted exhaust to the staff bathroom in the 1977 Addition using the existing inline exhaust fan, for code Compliance.

2. HVAC
   a. Replace the four R-22 split systems air conditioners in the Clapboard Structure with a single Variable Refrigerant Flow (VRF) heat pump system having a single outdoor unit with four attached indoor fan coils (each separately controlled/programmed). Heat pump mode will operate during most heating conditions reducing oil consumption. During cooling mode, the system is extremely efficient. The R-22 units have to go no matter what. This will bring the building into code compliance while reducing fuel bills and air conditioning bills.

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b. Replace the four office window air conditioners throughout the building with a single Variable Refrigerant Flow (VRF) heat pump system having a single outdoor unit with four attached indoor fan coils (each separately controlled/programmed). Heat pump mode will operate during most heating conditions reducing oil consumption. During cooling mode, the system is extremely efficient and quiet. This will bring the building into code compliance while reducing fuel bills and air conditioning bills.
c. Replace the gymnasium HV unit with a high efficiency unit having single-zone variable speed controls, with full economizer capability and demand control ventilation controls. This will result in ventilation code compliance and considerable electrical energy savings, greatly improved thermal comfort, and indoor air quality. Integrate controls with exhaust fan. Acoustically line return and supply ductwork for significant improvement in noise. Perform load calculation to right-size the unit. Consider a packaged HVAC (cooling) unit for summertime comfort.
d. Add diffusers in gymnasium ductwork and rebalance for improved comfort and code compliance.
e. Install motion sensor controls on gymnasium bathroom exhaust fans for code compliance.
f. Install exhausting range hood in the Clapboard Structure Kitchen for improved indoor air quality.

3. Plumbing
   a. Provide and install an ASSE 1070 code compliant tempering valve at all ADA lavatories. This is required to make the Toilet Room comply with current ADA standards.
   b. Provide and install insulation for water and drain lines at all ADA lavs equal to Plumber, preformed insulation system (white). This is required to make all the Toilet Rooms comply with current ADA standards.
   c. Bring warm water to all lavatories in the 1977 Addition.
   d. Install tempering valves on all ADA lavatories.
   e. Provide and install new 1" thick heavy density fiberglass pipe insulation with ASJ and precut, formed molded fiberglass with PVC jacketing for all fittings to all domestic water piping. This is required by code for all new construction, however this building is in current use and it would benefit the heat loss throughout the domestic water piping.
   f. Measure well yield, analyze maximum daily need, and design an integrated approach to eliminating water shortage, incorporating an atmospheric cistern day tank with booster pump, and possible new well.

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g. Hire a water treatment company to install a system to reduce dissolved iron and other minerals that are fouling the plumbing in the building. Remove the 10-foot abandoned water storage tank in the Clapboard Structure mechanical room to make room for new CW systems.
h. Abandon all lead-soldered piping throughout the building and outside. Install all new hot and cold water lines where needed.
i. Toxic Metal: The town should contact the NH DES to learn whether the Center Conway Community Building is regulated under any United States E.P.A or New Hampshire D.E.S. program, and if so, what are the mandated compliance actions. Work with water quality turnkey providers for treatment.

4. Electrical
   a. Upgrade interior gymnasium lighting with LED fixtures and install tight to the ceiling/structure.
   b. Review the attic wiring in more detail and re-wire as necessary.
   c. Upgrade interior lighting with LED fixtures.
   d. Add convenience receptacles and branch circuits in areas as needed for additional load capability and increased space flexibility. This will likely require the addition of a new branch power panel.
   e. Repair/replace existing receptacles that are damaged.

5. Building Life Safety Code Deficiencies
   a. Install code compliant sprinkler system. This will involve a day tank and fire pump.
   b. Provide new exterior emergency lighting at all facility egress doors.

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APPENDIX VI

ESTIMATE OF PROBABLE COST BREAKDOWN

Cobb Hill Construction, Inc.
206 North State Street • Concord, NH 03301 • 603.224.8373 • Fax: 603.224.0375 • www.cobbhill.com • email: info@cobbhill.com

10/10/17

Conway Recreation Center
1808 E Main St,
Center Conway, NH 03813

Concerning the Town of Conway, New Hampshire,

Cobb Hill Construction is pleased to submit a budget for the work located in Conway, New Hampshire.

This budget is based on our interpretation of means and methods of construction to provide anticipated finishes.

*This Budget is valid for 30 days
The Scope of Services is as follows

Baseline Option $1,119,870

The baseline price includes construction managed by a project manager and full time on-site supervisor. Work includes major modifications to the existing facilities with a focus on upgrading mechanical and electrical systems. All existing mechanical and electrical systems will be removed and replaced with new. A new well and septic system are included along with cisterns and a pump house to supply a new fire suppression system. Also included in the price above is removing carpet, sanding and refinishing existing hardwood floors and painting the interior of the school. Finally included in the baseline option is removing and replacing the gymnasium roof with a new built up roofing system.

Exclusions

1) Architectural and engineering design services.

Cobb Hill Construction — **Standard Estimate Report** — *Page 1*
Baseline — *10/6/2017 10:54 AM*

Description		Quantity	Labor Amount	Material Amount	Subcontract Amount	Equipment Amount	Other Amount	Total Amount
1000.00	GENERAL REQUIREMENTS		37,475	1,250	5	722	5,570	45,021
2000.00	SITEWORK		10,800		78,200	3,500		92,500
3000.00	CONCRETE				45,500			45,500
6000.00	WOOD & PLASTICS			15,000				15,000
7000.00	THERMAL & MOISTURE PROT		9,405	22,121	41,200			72,726
9000.00	FINISHES		1,150	600	21,000			22,750
15000.00	MECHANICAL		560	11,250	453,500			465,310
16000.00	ELECTRICAL			27,000	140,700			167,700
	Estimate Totals							

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	59,390		1,459.330 hrs				5.30%
Material	77,221						6.90%
Subcontract	780,105						69.66%
Equipment	4,222		519.990 hrs				0.38%
Other	5,570						0.50%
	926,508	926,508					82.73
Liability Insurance	7,412			0.800 %	C		0.66%
Builders Rick Insurance	6,486			0.700 %	C		0.58%
	13,898	940,406					1.24
Contingency	46,325			5.000 %	C		4.14%
Preconstruction Services	18,530			2.000 %	C		1.65%
	64,855	1,005,261					5.79
Overhead	64,856			7.000 %	C		5.79%
CM Fee	27,795			3.000 %	C		2.48%
	92,651	1,097,912					8.27
Bonding	21,958			2.000 %	T		1.96%
	21,958	1,119,870					1.96
Total		***1,119,870***					

Option One $3,163,952

The price for option one includes construction managed by a project manager and full time on-site supervisor. Work includes major modifications to the existing school and demolition of the existing gymnasium followed by construction of a new gymnasium. The new gymnasium will be built as a new steel frame structure with CMU walls, storefront entrances, locker rooms, bleachers, basketball hoops and new offices. A new well and septic system are included along with cisterns and a pump house to supply a new fire suppression system. Renovations to the school from the baseline option are included in this price. In addition to the baseline school renovations this budget includes removing reconfiguring some interior walls as shown on plans.

Exclusions

2) Architectural and engineering design services.

Cobb Hill Construction

Standard Estimate Report

Option 1

Description		Quantity	Labor Amount	Material Amount	Subcontract Amount	Equipment Amount	Other Amount	Total Amount
1000.00	GENERAL REQUIREMENTS		127,424	1,000	100	10,076	12,469	151,068
2000.00	SITEWORK		18,452	5,499	291,250	10,500		325,701
3000.00	CONCRETE		2,496	23,166	152,720			178,381
4000.00	MASONRY				75,072			75,072
5000.00	METALS				188,100			188,100
6000.00	WOOD & PLASTICS			57,494	34,000			91,494
7000.00	THERMAL & MOISTURE PROT		57,863	19,202	12,000			89,065
8000.00	DOORS & WINDOWS		3,060	11,400	22,575			37,035
9000.00	FINISHES		29,705	4,180	399,165			433,050
10000.00	SPECIALTIES		1,740	11,160	3,600			16,500
11000.00	EQUIPMENT		4,860		16,758			21,618
12000.00	FURNISHINGS				19,375			19,375
13000.00	SPECIAL CONSTRUCTION				14,700			14,700
14000.00	CONVEYING SYSTEMS				80,000			80,000
15000.00	MECHANICAL		560	11,250	644,665			656,475
16000.00	ELECTRICAL			18,000	222,015			240,015

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	246,159		428,994.584 hrs			14.480 /s	7.78%
Material	162,351					9.550 /s	5.13%
Subcontract	2,176,095					128.006 /s	68.78%
Equipment	20,576		3,647.930 hrs			1.210 /s	0.65%
Other	12,469					0.733 /s	0.39%
	2,617,650	2,617,650				153.979 /s	82.73
Liability Insurance	20,941			0.800 %	C	1.232 /s	0.66%
Builders Rick Insurance	18,324			0.700 %	C	1.078 /s	0.58%
	39,265	2,656,915				156.289 /s	1.24
Contingency	130,882			5.000 %	C	7.699 /s	4.14%
Preconstruction Services	52,353			2.000 %	C	3.080 /s	1.65%
	183,235	2,840,150				167.068 /s	5.79
Overhead	183,235			7.000 %	C	10.779 /s	5.79%
CM Fee	78,529			3.000 %	C	4.619 /s	2.48%
	261,764	3,101,914				182.466 /s	8.27
Bonding	62,038			2.000 %	T	3.649 /s	1.96%
	62,038	3,163,952				186.115 /s	1.96
Total		***3,163,952***				***186.115 /s***	

Option two $3,958,103

The price for option two includes construction managed by a project manager and full time on-site supervisor. Work involves demolishing the entire existing facility and building a new single story steel and wood framed structure. Budgeting for this new facility includes matching existing finishes in the school and building the new gymnasium within a single story 17,000 square foot layout.

Exclusions

1) Architectural and engineering design services.
2) Kitchen Appliances

Cobb Hill Construction

Standard Estimate Report

Option 2

Description		Quantity	Labor Amount	Material Amount	Subcontract Amount	Equipment Amount	Other Amount	Total Amount
1000.00	GENERAL REQUIREMENTS		148,604	1,125	100	10,798	15,975	176,602
2000.00	SITEWORK		7,652	5,499	459,950	14,000		487,101
3000.00	CONCRETE		4,295	30,282	188,655			223,232
4000.00	MASONRY				75,072			75,072
5000.00	METALS				188,100			188,100
6000.00	WOOD & PLASTICS			120,264	183,100			303,364
7000.00	THERMAL & MOISTURE PROT		64,934	26,870	14,195			105,999
8000.00	DOORS & WINDOWS		11,240	34,044	35,485	3,910	3,910	88,589
9000.00	FINISHES		104,559	6,117	393,543			504,219
10000.00	SPECIALTIES		3,000	12,997	4,500			20,497
11000.00	EQUIPMENT		4,860		16,758			21,618
12000.00	FURNISHINGS			7,200	19,375			26,575
13000.00	SPECIAL CONSTRUCTION				14,700			14,700
15000.00	MECHANICAL				741,895			741,895
16000.00	ELECTRICAL				297,115			297,115

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total
Labor	349,144		431,248.271 hrs			20.538 /sqft	8.82%
Material	244,398					14.376 /sqft	6.17%
Subcontract	2,632,543					154.855 /sqft	66.51%
Equipment	28,708		4,167.920 hrs			1.689 /sqft	0.73%
Other	19,885					1.170 /sqft	0.50%
	3,274,678	3,274,678				192.628 /sqft	82.73
Liability Insurance	26,197			0.800 %	C	1.541 /sqft	0.66%
Builders Rick Insurance	22,923			0.700 %	C	1.348 /sqft	0.58%
	49,120	3,323,798				195.518 /sqft	1.24
Contingency	163,734			5.000 %	C	9.631 /sqft	4.14%
Preconstruction Services	65,494			2.000 %	C	3.853 /sqft	1.65%
	229,228	3,553,026				209.002 /sqft	5.79
Overhead	229,227			7.000 %	C	13.484 /sqft	5.79%
CM Fee	98,240			3.000 %	C	5.779 /sqft	2.48%
	327,467	3,880,493				228.264 /sqft	8.27
Bonding	77,610			2.000 %	T	4.565 /sqft	1.96%
	77,610	3,958,103				232.830 /sqft	1.96
Total		***3,958,103***				***232.830 /sqft***	

Please feel free to contact me with any questions regarding this budget.
Sincerely,

Jerry

Jerry Kingwill,
Cobb Hill Construction