



North
Truro
Air
Force
Station

WALSH WAY PROPERTY ASSESSMENT REPORT

Walsh Way,
Truro, MA 02666

MARCH 2022

Weston & SampsonSM

westonandsampson.com

100 Foxborough Boulevard, Suite 250, Foxborough, MA 02035



WALSH WAY PROPERTY ASSESSMENT REPORT

KEY PLAN

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EXECUTIVE SUMMARY

Scope of Work

The Town of Truro has acquired the Walsh parcel, which includes eight (8) existing wood-frame dwellings and miscellaneous outbuildings on six (6) parcels totaling 7.92 acres and two additional parcels without buildings for a total of 69.8 acres. The Town has a pressing need for additional housing for Town employees, seasonal staff, and others, and wishes to evaluate the structures and the overall site for redevelopment. This may include renovation or replacement of the houses in-place, new free-standing or clustered residential units, or some combination of both. The need for three types of housing has been identified; traditional single-family, transitional (shorter-term) housing for relocated Town employees, and group- or dormitory-style accommodation for seasonal staff. Other housing types or scenarios may be developed as our work with the Town progresses.

Prior to proceeding with full programming and conceptual design of housing alternatives, the Town has asked Weston & Sampson to perform an evaluation of the existing structures to determine the feasibility and order of magnitude cost to repair and renovate the existing structures vs. the cost to replace the existing structures in kind with new housing.

Weston & Sampson attended a kick-off meeting at Truro Town Hall November 19, 2021 with Darrin Tangeman, Barbara Carboni and Jarrod Cabral, followed by a visit to the Walsh site to perform an architectural assessment of the Walsh cottages and assorted out-buildings. The purpose of the assessment was to document the current physical state of the eight potentially habitable Walsh structures including the condition of the building envelope roof, walls, doors and windows, porches, stairs and foundations and interior conditions including general floor plan layout and the nature and condition of interior finishes, fixtures and equipment including walls, flooring, ceilings, bathrooms, kitchen, lighting, heating (where present) and electrical systems.



Walsh Parcel Key Plan

EXECUTIVE SUMMARY

A separate visit was made December 22, by a Massachusetts-licensed asbestos inspector to perform a limited hazardous material survey. The results of the survey and potential cost implications are detailed in Section 2. Additionally, as none of the parcels or individual cottages currently have compliant Title-5 septic systems, the report investigates the feasibility and cost for installing new individual septic systems for either renovated in place cottages or new replacement-in-kind residences, keeping the same number of bedrooms as currently exists.

A second scenario investigates a single centralized septic system sized for the current number of bedrooms. We have also looked at the total number of bedrooms that could be supported by a larger centralized septic system if all parcels that comprise the 7.92-acre site were combined. This information will be useful if the Town wishes to investigate higher density housing options.

Cost Projections

Cost projections were developed looking at renovating the existing cottages in place and for building new structures to replace the existing cottages in kind. To have an apples-to-apples comparison, there is no change in building size between these two scenarios. An additional third scenario was investigated that shows the cost to renovate two of the existing cottages (10 and 13 Walsh Way) and to remove and replace the other 6 cottages with new, larger units. In this case, it is thought that the construction might be phased, allowing occupancy of the renovated units, while new construction could be segregated on other portions of the site. In all scenarios, the goal would be to have single-family housing units that would allow for year-round occupation, with upgrades as required to meet current building and energy code requirements. It would also be the goal to have a certain percentage of the units made accessible for those with disabilities as none of the cottages in their current configuration provide this.

Permitting Design and Construction Timelines

The permitting, design and construction timelines will vary depending on the exact route the town chooses to pursue, but the timeline is generally estimated below for each option. Permitting is expected to occur concurrently with the design and not sequentially, which will shorten the overall timeline.

Option #1 involves the renovation and repair of the existing Walsh Cottages without changing the building footprint or interior layouts. As such, Zoning Board of Approval review and ruling would not be required. It is estimated that it would require 18-20 months including design through construction completion.

- *Permitting and Design (concurrent) : 4-6 months
- *Bidding: 2 months
- *Construction: 12 months from Notice to Proceed through Final Completion

Option #2 and #3: Total Reconstruction and Phasing Construction: Both Options #2 and #3 would likely require additional permitting time. While the existing Walsh cottages are not listed on National or State historical registers, due to being over 75 years old, the proposed demolition of these structures would require review by the Truro Historical Commission. It is estimated that these options would require 22-24 months including design through construction completion.

- *Permitting and Design (concurrent) : 8-10 months
- *Bidding: 2 months
- *Construction: 12 months from Notice to Proceed through Final Completion

EXECUTIVE SUMMARY

Additional Dwelling Units

The Town's zoning by-laws allow for increased housing density by the addition of "Accessory Dwelling Units" by Special Permit from the planning board.

Currently, 6 of the 9 parcels have been developed with cottage structures:

- Parcel 43-08: #3 Walsh Way with (1) Building on .82 Acres
- Parcel 43-10: #10 Walsh Way with (1) Building on .87 Acres
- Parcel 43-13: #13 Walsh Way with (1) Building on 2.24 Acres
- Parcel 43-133: #6 Walsh Way with (1) Building on .45 Acres
- Parcel 43-134: #5 Walsh Way with (1) Building on .78 Acres
- Parcel 43-135: #7 Walsh Way with (3) Buildings on 2.98 Acres

Parcel 43-175 already has three existing units on one parcel, so unless the Zoning Board of Appeals grants a variance, no additional units would be allowed. One additional dwelling unit (ADU) could be added to the five other lots with cottages, bringing the total number of dwelling units from 7 to 12.

Building Code Implications

Building Code: Generally, the Building Code permits "ordinary repairs" without the need to comply completely with current Code requirements. More substantial alterations, additions, structural modifications, etc., can trigger the need for some or all of the work to conform to current codes. Rich Stevens confirmed that the level of building code compliance required for building alterations is dependent on the extent of the proposed work and that when 50% or more of the interior space is reconfigured, the entire building shall be brought up to current code requirements. New construction will need to meet all requirements of the current State Building and Energy Codes. The approach to building code compliance of either renovated or newly constructed residences should be submitted to the local building inspector and fire marshal responsible for plan review at the earliest phase of design in order to reach a consensus and to incorporate any requirements the local Authorities having Jurisdiction (AHJ's) might have.

780 CMR, Appendix J of the Residential Building Code would apply to the repairs, renovations, reconstruction, and alterations of the existing Walsh Cottages with the following work expected to require compliance with new residential building code:

1. New structural foundations and floor framing and the upgrading of any other building structural components that are determined to be unsound or dangerous.
2. Title 5 compliant Septic System(s) to replace existing cesspools
3. Repair and/or replacement of deteriorated building envelope components; roof, siding, windows, and doors.
4. Reconstruction of failing additions to the main building core and the reconstruction of any failing open or enclosed porch structures.
5. Replacement and/or addition of antiquated mechanical, electrical, and plumbing infrastructure.
6. Renovations related to providing properly sized egress openings at door and window openings.

Energy Code: As the intent is to rehabilitate the structures for year-round occupancy with the addition of heating and cooling, the structures will need to meet current residential energy code requirements by upgrading the building thermal envelope with building insulation, air and weather barriers, and energy efficient windows and doors.

Accessibility: Neither the 2010 ADA Standards for Accessible Design or 521 CMR -Massachusetts Architectural Access board regulations apply to Multiple dwellings consisting of two or fewer units, so upgrades for handicap accessibility are not mandated. The town may choose to include one or more accessible units based on their own accessibility goals or standards.

EXECUTIVE SUMMARY

Sears and Roebuck "Kit Home" Construction

The Walsh Cottages are purported to be Sears and Roebuck mail order "Kit" homes. Sears manufactured "Modern" and "Honor Bilt" pre-cut and fitted residences that were purchased from their catalog and delivered to the site by train for assembly by the homeowner or their general contractor. The homes were manufactured from about 1900 through the 1940's. Sears kit homes were typically tightly engineered and often used non-standard framing sizes and spacing as they were produced before standardization of building materials became prevalent after World War II. They could also utilize unique millwork elements, depending on the complexity of the building plan and the options selected by the purchaser. Their structural performance is adequate, but may not meet current Building Code requirements, particularly if the framing is modified. In the case of the Walsh cottages, the kit homes were not constructed on permanent frost wall foundations, but are supported on wood columns supported by dry laid concrete block foundation piers. The limited structural depths of the wall framing members will pose a challenge where insulation must be added to meet Energy Code requirements.

The Walsh Cottages we surveyed represented the most basic of available floor plans with few, if any, optional features, similar to "The Rosita" and "The Wabash" models shown below.

The Rosita **Home-Built** \$772.00
No. 2048 "Already Cut and Fitted"
Built from 2,277 lbs. of
"Already Cut and Fitted"
Material. No. 2048 Plan No. 2048

At the price quoted we will furnish all the material to build this four-room house, consisting of lumber, trim, fire-chief shingle and roofing, mill work, flooring, siding, finishing lumber, building paper, sashes through doors and windows, and plastering material. We guarantee enough material to build this house. Prices do not include cement, brick or plaster.

Can be **BUILT COMPLETE** with high grade *gypsum* plaster, rock sheathing, exterior paint and interior trim, including all material and labor. Prices for \$1,200.00 for 2048 and \$2,000.00 for 2048B. See page 8 in book.

ALMOST anybody can own a home when the materials are furnished for these remarkably low prices. This is particularly true when, as in the present instance, the material comes already cut and fitted. This reduces the cost of expert labor. Has good wood sheathing under the narrow level siding and when built according to our specifications will be warm enough for any climate. The trellised porch gives it a finished appearance, and the Fire-Chief Shingle Roll Roofing, which we furnish in either dark red or sea green color, gives you roof protection, other than paint or stain bills, for more than seventeen years.

Main Floor There are four good size rooms in this house, all well lighted and properly ventilated. A substantial glass door leads from the porch into the living room, from which doors lead to the front bedroom and kitchen. Another door leads from the kitchen to the rear bedroom. Rooms are 8 feet 2 inches from floor to ceiling.

We furnish our best "Quality Guaranteed" mill work, shown on pages 118 and 121. Interior doors are fire-resistive panels, with trim and flooring to match, all yellow pine, in beautiful grain and color. Windows are made of clear California white pine, with good quality glass set in with best grade of putty. Porch has fir edge green flooring.

Paint for three coats outside, your choice of color. Varnish and wood filler for interior finish. Stairhead Design hardware, see page 121.

Basement under rear house, 7 feet high.

Built on a concrete block foundation, frame construction and sided with narrow level clear cypress siding. Fire-Chief Shingle Roll Roofing for the roof, guaranteed for seventeen years.

OPTIONS
No. 2048B *Shoe Parlor and Plaster Finish* to take the place of porch, \$10.00 extra.
No. 2048C *Shoe Parlor and Plaster Finish* to take the place of porch, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.

Three Rooms can be built on a lot 24 to 30 feet wide.
Five pieces of Plumbing, Heating, Wiring, Electric, Tubular and Shades see page 115.

Our Guarantee Protects You—Order Your House From This Book.
Price Includes Plans and Specifications.

Built at Portland, N. Dak., Middletown, Ohio, Milford, Neb., Hobart, Ind., Soldier, Iowa, and many other cities.

SEARS, ROEBUCK AND CO.

The WABASH **Home-Built** \$966.00
No. 2052 "Already Cut and Fitted."

See Description of "Honor Bilt" Homes on Page 9.

At the price shown we will furnish all the material to build this four-room house with screened porch, consisting of lumber, bath and roofing, mill work, porch siding, siding, flooring, interior and exterior trim, finishing lumber, building paper, sashes through doors and windows, and plastering material. We guarantee enough material to build this house. Price does not include cement, brick or plaster.

THIS is a house planned and designed by United States Government architects after extensive investigation and at considerable cost. We have added an additional door with porch on the front, the gable being sided with cedar shingles.

This house has a double floor and is sheathed with good wood sheathing, then covered with heavy building paper, making it solid and warm. "Honor Bilt" No. 1 yellow pine frame construction, sided with clear cypress level siding and by the roof, Fire-Chief Shingle Roll Roofing, 90 pounds per roll, guaranteed to last for fifteen years. Concrete block foundation.

A basement porch will give you door leads into one of the bedrooms and a rear bedroom into the other. Rear bedroom has closets and is lighted from rear side.

Rooms are 8 feet from floor to ceiling.

We furnish our best "Quality Guaranteed" mill work, described on pages 118 and 121. Interior doors are fire-resistive panels, with trim and flooring to match, all yellow pine, in beautiful grain and color. Windows are made of clear California white pine, with good quality glass set in with best grade of putty. Porch has fir edge green flooring. The screened porch has a cement floor.

Paint for two coats outside, your choice of color. Varnish and wood filler for interior finish. Stairhead Design hardware, see page 121.

OPTIONS
Shoe Parlor and Plaster Finish to take the place of porch, \$10.00 extra.
Change screened porch into bedroom, \$20.00 extra. This includes one extra outside kitchen door.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.
Screen Doors and Windows, \$10.00 extra.

This house has been built at Hardey, Ohio, Adams, Ill., Indianapolis, Ind., Wilmettsville, Ill., Parma, Ohio, Ill., Hobart, Ind., and other cities.

Our Guarantee Protects You—Order Your House From This Book.
Price Includes Plans and Specifications.

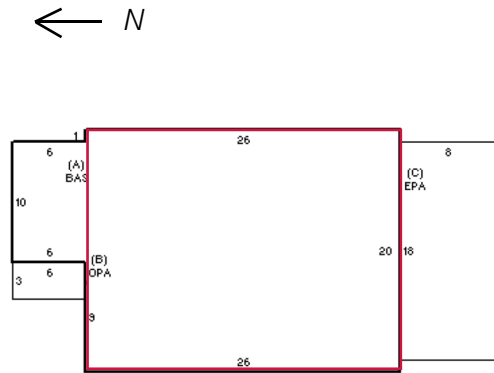
SEARS, ROEBUCK AND CO. CHICAGO

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

3 WALSH WAY



Key plan of building 3 location



Original building structural core outlined in red

3 Walsh way is a single story, 580 sqft building constructed in 1900. Like other cottages on the Walsh Parcel, it is believed to have been ordered as a kit home from Sears and Roebuck and constructed on a site prepared foundation of timber posts. The unit contains 1 bedroom, a single bathroom, a kitchen and a living room. It appears that building additions to the front and an expansion of the kitchen at the rear of the building were added at a later date. This cottage was occupied seasonally until 2013 and has remained abandoned since that time. Like all properties surveyed on the Walsh Parcel, 3 Walsh Way has a cesspool septic system.

The exterior walls are constructed of wood stud framing with plank siding covered with painted cedar shingles. The cedar wall shingles are in mostly fair conditions with evidence of peeling paint throughout and decaying shingles around the front entrance where they are in contact with the brick masonry steps. Wood window and door trim have largely lost their paint and are decaying badly in some areas. The windows are single pane, true divided lite, covered by aluminum storm windows in all areas except for the front porch addition. The unprotected front porch windows are in poor condition.

The asphalt shingle covered "Jerkinhead" roof at front entrance transitions to a hipped roof to the rear. The asphalt shingles are in fair to poor condition. The wood fascia and rake trim boards have largely lost their paint and are starting to rot. The eaves have exposed wood rafter tails, that are in fair condition, but in need of painting.

The cottage is built upon timber posts and dry-laid concrete block foundation piers, the posts and piers support 4x6 first floor beams and 2 x 6 floor joists that raise the first floor approximately 1' above grade. The foundation piers are in direct contact with the soil and a vapor barrier is not present. The underside of the structure is protected by incomplete and deteriorating timber and plywood skirting. There is no heating or cooling system in this location.



Front addition. Brick mortar steps, and peeling paint on shingle siding and fascia, rake, door and window trim



Side elevation with missing rain gutters and overgrown foundation plantings

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

3 WALSH WAY



Peeling paint, and siding failing at penetration openings and rotting at the roof line. Additions to the left and right.



Rear elevation of kitchen addition accessed by decaying wood stairs.



Exposed roof rafters at eave show signs of rot, and peeling paint on fascia board.



Rake trim at asphalt shingle termination is failing.



View of exposed and rotting eave with aluminum gutters sagging from the weight of accumulated organic matter supporting live vegetation.



Interior of roof in front porch addition, with peeling paint and signs of water ingress.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

3 WALSH WAY



The foundation skirt has rotted through a damaged membrane layer.



View to crawl space showing notched 2x6 beams and 2x6 wood floor joists. The exposed underside of this and many of the other cottages creates a potential habitat for wildlife.



Deteriorated painted plywood foundation skirting.



Brick steps at front entry. Note rotting shingles at bottom courses to brick.



Painted sloped wood flooring at front entrance porch with stained bead board cedar wall panels.



Synthetic grass carpeting covers a severely uneven wood floor surface due to sagging, undersized floor joists and foundation settlement. .

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

3 WALSH WAY



Vinyl sheet tile in bathroom with with painted wooden base showings.



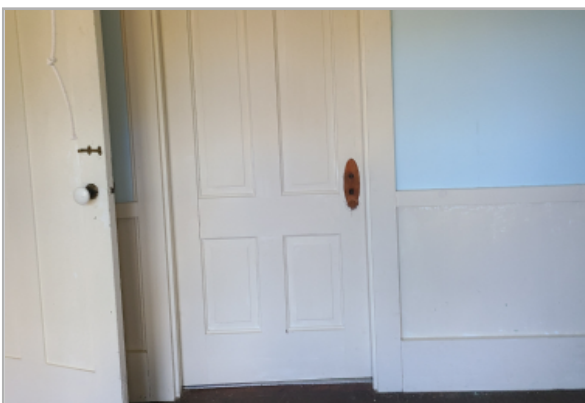
Wood flooring in bedroom is in fair condition. Non-grounded electrical outley located in baseboard.



View from front porch additon to main entrance.



Kitchen addition wall has an unfinished interior with chipping and peeling paint. Due to the age of the structure, lead paint is assumed at all painted surfaces.



Paster walls with chair rail, trim at door, and contrasting colors. Paint is faded and there are some areas of minor damage due to age. Most interior door opening widths provide less than a 32" clear opening and as such would not be considered ADA compliant.



Wood panel walls, naturally stained with a contrasting base board. There are signs of mold and mildew growth in some areas.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

3 WALSH WAY



White plaster walls in bathroom is showing signs of mold and mildew growth.



Porcelain sink and counter unit in kitchen. The green linoleum flooring has tested positive for asbestos.



Small residential refrigerator and range.



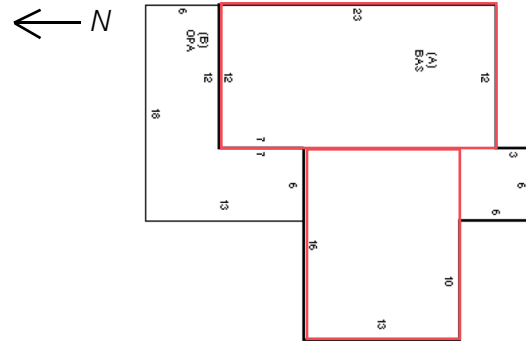
Wall hung sink with separate hot and cold faucet fixtures. Hazardous non-GFCI, non-grounded electrical outlet next to sink.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

5 WALSH WAY



Key plan of building 5 location



Original building structural core outlined in red

5 Walsh way is another single-story Sears kit home constructed in 1900 containing one bedroom, a single bathroom a kitchen and a living room. The 150 sf screened porch and rear bathroom addition appear to have been added at a later date. This residence was occupied seasonally until 2011 and does not contain insulation in the exterior walls or attic space. The cottages exterior walls are clad in painted wood shingles, with original window and door assemblies. The main core is 18'x20' with a site-built screened porch addition in the front and a bathroom bump-out addition supported by a concrete block foundation at the rear of the building.

The exterior walls are constructed of wood stud framing with plank siding covered with painted cedar shingles. The cedar wall shingles are in mostly fair to poor condition with evidence of peeling paint throughout and decaying shingles at various locations, but especially at the bottom of walls where in some instances they are in direct contact with the ground and at intersections . Wood window and door trim have largely lost their paint and are decaying badly in some areas. The windows are single pane, true divided lite, covered by aluminum storm windows in all areas except for the front porch addition and one window at the bath. The unprotected front porch windows and the window at the bathroom addition are in poor condition. Lead painted surfaces are suspected due to the age of teh building.

The gable roof areas are covered in asphalt shingles that are in need of immediate replacement. The low-sloped shed roof areas have a rubber membrane type covering that is mechanically fastened to perimeter rake and fascia boards with aluminum trim. It appears that the membrane roofing was installed at the same time at other Walsh cottages with low-sloped flat roof surfaces. All extrior wood trim at is in poor conditon.

The cottage is built upon timber posts and dry-laid concrete block foundation piers, the posts and piers support 4x6 first floor beams and 2 x 6 floor joists that raise the first floor approximately 1' above grade. The foundation piers are in direct contact with the soil and a vapor barrier is not present. The underside of the structure is protected by incomplete and deteriorating timber and plywood skirting. It is not known if the propane fired unit heater is still functional.



Front of cottage where a covered porch wraps around one corner. The screens and low walls are greatly weathered.



Building siding paint is peeling throughout with rotting deteriorated shingles and wood trim boards.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

5 WALSH WAY



South face of the building, the paint is peeling and chipping on almost 80% of the wall surface area.



View of West face of building, the paint is peeling and chipping off of almost 90% of the surface area. The front porch addition is failing as is the masonry chimney.



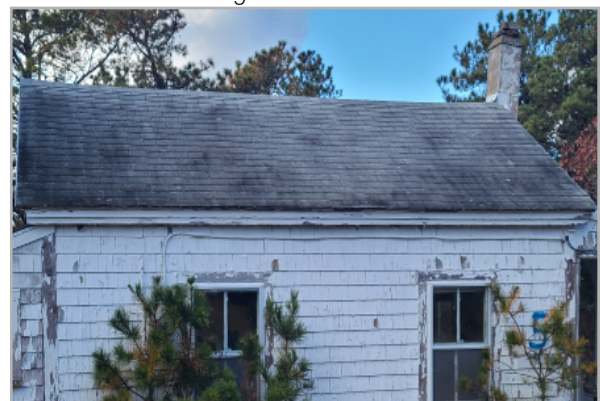
The front porch addition roof is pitched incorrectly causing water to run towards the gable end of the roof.. This entire construction has degraded and must be demolished.



A view of the rake condition of the original roof. A louver is located at the peak, and has deflected out of its penetration. The rake shows sign of mold between the fascia board and siding.



View of back additions, the membrane roof has failed and the fascia board has rotted out exposing the structure behind to the weather. The building siding has also been patched with a membrane sheet to the right.



Roof with degraded asphalt shingles and visible sagging due to either damaged or insufficiently sized roof rafters.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

5 WALSH WAY



Wooden foundation under front porch addition sitting on grade.



View of CMU foundation at South West corner, vegetation is beginning to encroach and the presence of a tree sapling suggests root penetration.



CMU foundation with discoloration indicating water damage within, and cracking in the mortar joints.



Ground and debris built up against CMU foundation and wall cladding at Southern elevation. Voids in the wall allow animals to enter and live under the building.



View of multiple layers of floor coverings that have crumbled away to expose the original wood floor blow. Sagging and sloping of floors and evident wall cracking suggest the foundation has settled over time.



View of room floor with two types of flooring and flush doorway threshold. The flooring is chipping and damaged in areas and must be replaced.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

5 WALSH WAY



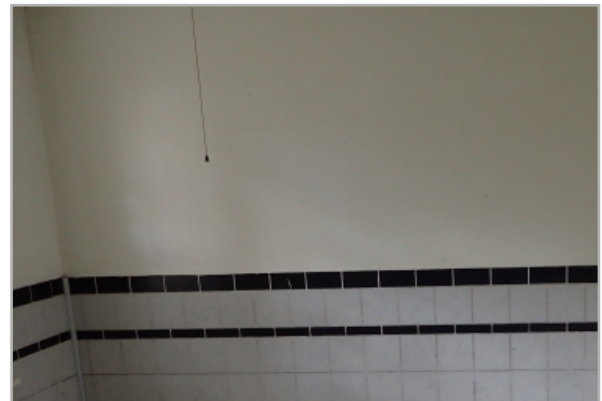
View of exterior threshold that is greater than one inch which is non-compliant with code, and deflection in the interior sheet floor finish can be observed.



Bathroom flooring is sheet tile, and has areas of mold growth and discoloration. The floor of the shower stall and base of wall is covered with mold and mildew growth.



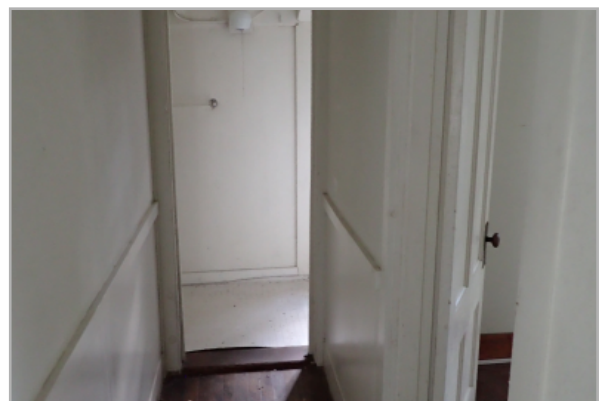
View of painted interior wall with base trim, there are areas of mildew growth on the wall panels.



View of wall finishes in bathroom, there is painted gypsum at the top of wall and the base of wall is ceramic tile with crumbling grout joints.



View of crumbling wall and ceiling due to insufficient moisture protection, and must be investigated for extent of damage.



View of building hallway with painted wall panels and trim at base and about 3' that is painted to match.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

5 WALSH WAY



View of bathroom with non-compliant sink fixture, a bathtub with non-compliant hardware, and an outdated toilet that needs replacing.



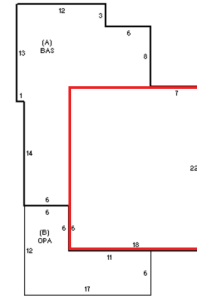
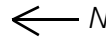
Small shower stall with separate hot and cold water fixtures.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

6 WALSH WAY



Key plan of building 6 location



Original building structural core outlined in red

6 Walsh way is 674 SF single-story Sears kit home constructed in 1940 containing two bedrooms, a single bathroom a kitchen and a living room. The front open porch and rear bathroom addition appear to have been added at a later date. This residence was occupied seasonally until 2011 and does not contain insulation in the exterior walls or attic space. The cottages exterior walls are clad in painted wood shingles, with original window and door assemblies. The main core is 18'x20' with a site-built screened porch addition in the front and a bathroom bump-out addition supported by a concrete block foundation at the rear of the building.

The foundation piers installed directly in the soil and are protected from the elements by thin timber about the lower perimeter of the structure. There is access to the partial basement at the rear.

The grade varies around the perimeter of the building, sloping from high to low from the back left corner to Walsh Way. At the back left corner there is a hollow core CMU retaining wall a few feet from the foundation. This location has a gable roof with deteriorating asphalt shingles and low slope membrane roof projecting off at the rear and left side. There are aluminum gutters and downspouts present on either side.

This cottage interior has painted plastered walls, with painted wood chair rails, crown molding, and baseboard. Floor areas slope visibly from the center of rooms towards the exterior walls. The floor finishes are a variety of vinyl sheet finishes, with a masonry hearth below the central heating unit.

The small kitchen has wall hung casework, a counter-top sink, stove/oven, and refrigerator. There is one bathroom, containing a stand up shower, sink, and toilet. This cottage has forced air heating and cooling supported by an oil system.



View of the front of the building, with a covered porch addition, and addition to the left side. The grade at this location slopes North (left) to South (right).



View of East elevation, there is a rear addition, with discoloration throughout siding indicating water damage.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

6 WALSH WAY



Northern face of the buildin. Most windows are single paned wood windows lacking aluminum storms. A few windows have wood framed storms.



Southern face of the building, with one window opening boarded up. The sill of the covered window is rotted with signs that it is allowing water into the building.



Front porch addition roof is an extension of the original roof and is secured into the exterior wall structure. The building structure is insufficient to support the porch canopy weight



View from the interior of water damage and mold seen in the ceiling indicating multiple areas of water penetration into the roof.



View of side addition membrane roof in relation to the original hip roof. The asphalt shingles are beyond their useful life. The gutter is filled with organic material supporting vegetative growth.



View of rear addition membrane roof in relation to original asphalt shingle roof. Evidence of ponding can be seen in the membrane roof, with vegetation build up in the gutter as well.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

6 WALSH WAY



CMU on grade foundation for porch addition is an insufficient structure, and the wood framing is in contact with the ground on the northern side (left).



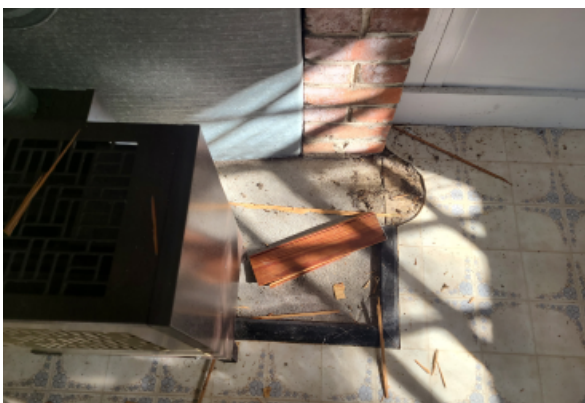
Door threshold in relation to the floor deflection, indicating a sloping settling foundation.



Interior door frame that is tilted, illustrating the failing foundation. This entire front room is sloping out from the central point of the inner most wall (facing here). The door opening width is 26\"/>



CMU retaining wall off set from foundation does not provide enough depth to keep the exterior building envelope from contacting the ground resulting in rotting and decaying of the exterior wall fabric in this location.



View of sheet flooring transition to stone tile of furnace hearth that is in the central inner wall location. This area has separated from the floor that has sheet on it due to the sloping of the foundation directed away from the wall at the top of this photo.



Sheet flooring with signs of degradation throughout.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

6 WALSH WAY



Condition of floor finish transition. Floor plan at this location is not wheelchair accessible due to configuration of cabinets and doorways and door thresholds.



Sheet flooring in bathroom with signs of degradation throughout and crumbling at the edges. Signs of water damage are apparent at the edge of shower stall.



Exterior corner of side addition with painted plaster walls. The window is not protected with a storm window and is in poor condition as a result.



View of kitchen wall with dangerous non-GFCI, non-grounded electrical outlet next to kitchen sink.



Painted plaster wall with cracks occurring due settling foundation and undersized floor joists.



Painted plaster wall with signs of mold and mildew growth. The window in this room is now interior due to the side addition.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

6 WALSH WAY



View of kitchen cabinetry and in counter sink. The hardware for the sink is non-compliant, and the cabinetry needs replacing due to structural concerns.



In counter sink and cabinet storage underneath. The cabinets and drawers could not close due to warping and the deflection of the floor structure below.



Stove/oven unit is outdated and needs replacing. There is no exhaust fan above the propane gas fueled burners.



Propane fueled central heating unit with signs of water damage from the chimney.



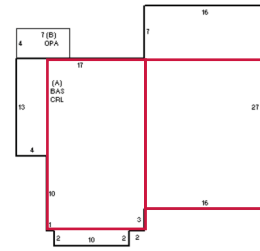
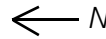
This building has a toilet, sink, and shower stall. The shower stall needs replacement due to degradation of materials.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7 WALSH WAY



Key plan of building 7 location



Original building structural core outlined in red

This 803sqft building was built in 1920 and contains 2 bedrooms and 1 bathroom. The original property was addressed 7 Walsh Way within parcel 43-135. This residence was occupied seasonally until 2011. The exterior walls are clad in painted wood shingles.

The cottage is supported by a partial CMU frost wall in the basement, and 2x4,6 first floor framing with tongue and groove sheathing. The crawl space at the structural intersection contains substandard structure of a 6x4 flat and temporary telescopic column support. The structure is divided between two “boxes” with a shed roof site built. The main “boxes” or cores are 18’x15’ LHS and 22’x13’ RHS, and the site built add on measuring 10’x15’. This cottage’s roof is primarily a gable structure with a shed roof add on supported by its own 10’x15’ core. The gable roof structure is supported by two main cores of wood studs sized at 18’x15’ and 22’x13’. The roof is wood and asphalt shingles with aluminum gutters and downspouts installed at three sides of the building. The interior walls are typically painted plaster walls with crown molding, chair rail trim, and base board trim. Within the bathroom there is wall paper applied over the plaster, and one wall has a marble panel applied. The area below the shed roof is an addition that changed the condition of an original exterior wall with an operable window. Within this shed roofed space the walls are open to the interior face of the wooden sheathing.

The floor finishes include wood parquet flooring tiles, and two types of vinyl sheets. The general condition of the floor is uneven, with dips throughout and the parquet flooring separating at the seams. This cottage contains a kitchen including a counter-top sink, refrigerator, and an oven/stove unit. There is a single bathroom with a standing shower and a sink. Above the oven/stove there is an exhaust fan to the exterior, that remains open to the elements. There is a laundry room at the rear of the building hosting a washer and dryer. This building has heating in the form of baseboard heaters fueled by hot water from an oil system. There are two brick chimneys at this location, with one hosting a fire place and the other looks to have been abandoned. There seems to be a third brick chimney located at the center of the building, but there is no existing penetration in the roof assembly at this location and will be assumed to be abandoned.



Non-compliant entry stairs at front and paint degradation.



South elevation, vegetation penetration can be seen.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7 WALSH WAY



East elevation has excessive vegetation overgrowth that has penetrated the shingles in some areas.



North face of building where exterior walls meets grade. Peeling and chipping of paint from the bottom up indicated water penetration from the base of wall.



General roof condition, the shingles show little sign of deflection but their adhesion and viability are assumed to be insufficient due to age.



Membrane roof condition of building additions with signs of degradation.



View of the roof eave condition where the paint is chipping between the sheathing boards. The peeling is not uniform throughout indicating that the roof eave may only have water penetration in just those areas.



Rear elevation of the building where vegetation has penetrated the exterior chimney and into the building interior at open penetrations. Roof edge areas unprotected by a gutter lack paint and shows signs of decay.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7 WALSH WAY



Concrete landscaping tiles at grade at the back entry to the building that have become obscured by the ground and vegetation encroachment and must be rehabilitated.



View of the base condition of a downspout where the last length of aluminum is missing. The water run off is insufficiently removed from the building footprint.



View of cracked parged CMU foundation. The basement window in this area is missing, allowing for animal habitation.



View of vegetation overgrowth penetrating chimney and wood shingle siding.



Wood parquet tile flooring with signs of warping and deflection throughout. Asbestos was detected in the flooring.



Sheet flooring that is badly worn with visibly evident floor deflection throughout.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7 WALSH WAY



View of sheet flooring with evident signs of deflection occurring.



Sheet flooring that is degrading and crumbling at the edges.



Exterior window that became interior with the side addition. To the right is a through-wall exhaust fan with vegetation penetration.



View into side addition, walls lack interior finishes revealing open stud bays without insulation.



Wallpaper and marble wall finish in bathroom. The wallpaper is showing signs of mold and mildew.



Painted plaster wall with trim about openings and at the base, as well as trim board at about 3' above finish floor. Paint shows signs of mold and mildew growth. The very low 6'-10" ceiling is open to the roof structure in one area.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7 WALSH WAY



Stove/oven fixture with counter top sink fixture. The hardware on the sink is non-compliant, and the stove/oven fixture is outdated and needs replacement.



Refrigerator that is outdated and needs replacing. Beside it can be seen what seems to be an old chimney that has been abandoned.



A set of clothes washer and dryer, as well as another unidentified fixture on top. The condition of these fixtures are unknown, but any utility connection must be updated.



Toilet fixture with signs of damage due to normal wear and tear. There are nonconforming guardrails in this location as well.



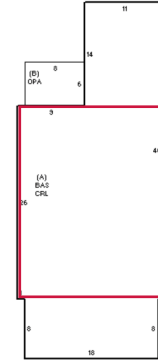
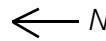
Bathroom fixture with non-compliant hardware.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7A WALSH WAY



Key plan of building 7A location



Original building structural core outlined in red

This 818sqft building was built in 1919 and contains 3 bedrooms and 1 bathroom. The original property was addressed 7 Walsh Way within parcel 43-135. This residence was occupied seasonally until 2011. This cottage has wood stud walls clad in painted wood shingles, and what are assumed to be original door and window penetrations. The cottage is supported by a main core sized 20'x25' made up of a central bearing wall and timber posts ranging from an elevation of up to 3.5' above grade to below/at grade. The horizontal structure resting on the posts is made up of 2x6 framing, and there is a hollow CMU retaining wall set back a few inches from the building footprint about the rear. This building has an exterior wooden access hatch to the crawl space below, and partitions have been constructed off of the 2x6 floor beams to enclose storage. This building has a hip roof structure on a 20'x25' core, with a gable roof extending off the front and a slow slope shed roof extending off of the rear. Both the hip roof and gable roof are asphalt shingle construction, and the shed roof is a membrane roof. Aluminum gutters and downspouts are installed at each eave location. There is a small gable shingled roof canopy above the front door as well. This cottage hosts a handful of interior wall finishes, mainly painted plaster with trim about penetrations, baseboard, and chair rail trim. One room has walls finished with vertical wooden boards, and the bathroom has ceramic tile terminating at a bull nose about halfway up the wall. The floors within this cottage have a softwood base, with three different styles of vinyl sheet applied. There is a visible dip in the floor towards the central load bearing wall throughout. This building has one bathroom with a bathtub, a toilet, and sink, although a stand up shower is located at the rear of the building with exterior door access. One kitchen is located in this building, with a counter top sink, refrigerator, and an oven/stove unit. There is a central brick chimney present at this location, but appears to have been enclosed in wood panels and abandoned. There is heating in the form of a wall furnace fueled a gas based heating system.



Front of cottage, front canopy roof assembly are rotted and insufficiently supported. Fascia board can be seen to be rotting as well.



Southern face of cottage, front and rear additions are apparent. This face is missing at least 50% of its paint.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7A WALSH WAY



There is a covered porch at the rear of the cottage, with a shower stall and cabinets. All painted surfaces are chipping and peeling, and signs of mildew at the porch.



View of rear addition to the East, the paint has chipped and peeled off of most of the siding. The window in this wall shows signs of water penetration about the perimeter.



View of typical gutter and downspout condition at this cottage. The connection of the gutter to the roof eave is non-compliant, and the rust apparent in the fastening screws indicates a need for roof replacement.



View of the original asphalt roof construction connecting to the rear addition membrane roof rake. The ridge of the original roof can be seen to show signs of degradation.



View of membrane roof of the rear addition, this roof has a significantly lower pitch than the original roof, and is showing signs of deflection in the structure.



Cottage roof condition with front addition roof rake meeting the original building siding below the original roof eave. This roof construction is non-compliant and must be made to be so.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7A WALSH WAY



View of CMU retaining wall slightly offset from building siding. Paint has peeled from the base of wall up, indicating water has penetrated the CMU to the siding.



View of the foundation enclosure at the front of the building where the grade is the lowest. The boards of the enclosure are rotting and two layers of paint can be seen peeling.



Wooden foundation enclosure rotting and detached from the building. Signs of past reinforcement efforts with a horizontal 1x3 can be seen at the very base.



View into foundation crawl space. Insufficient floor supports can be seen, and a wood board partition dividing the space into storage and inaccessible.



Wall to wall sheet flooring with word spots and some crumbling at the edges.



Change in material between rooms, and significant change in floor elevation. Floor sheet finish shows signs of deflections throughout.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7A WALSH WAY



Sheet tiling in bathroom that is crumbling at the edges and seams.



Sheet flooring with signs of degradation throughout and crumbling at the edges.



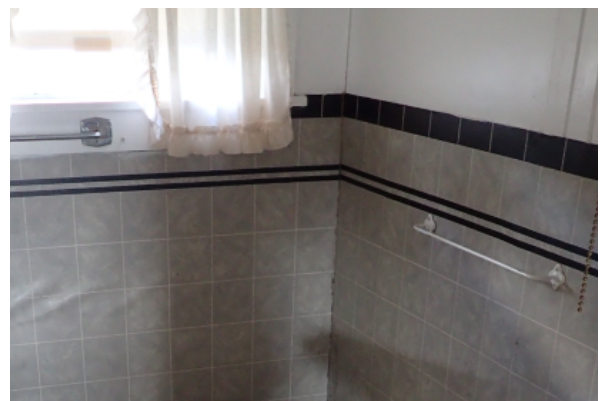
Painted plaster wall with trim about openings and at the base, as well as trim board at about 3' above finish floor. Paint shows signs of mold and mildew growth.



Floor to ceiling wood paneling with base and crown molting. There is some rippling indicating some deflection occurring from the interior structure.



Clear wood board paneling wall finish, shows sign of mold and mildew, and there are scrapes in places as well.



Tile wall finish in full bathroom, terminating in a tile bull nose and has painted plaster above.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7A WALSH WAY



Refrigerator and in counter double sink are present. The refrigerator has signs of mold, and must be replaced.



Stove/oven fixture with exposed connection into the wall. Fixture is outdated and needs replacing.



Sink and bathtub, both with non compliant hardware. Toilet is also present as well in this bathroom.



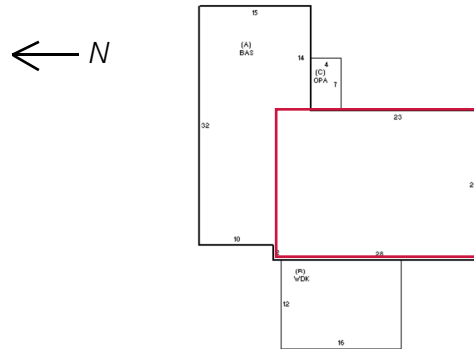
Conduit box with original fuses is non compliant and must be removed and replaced with up-to-date fixture and wiring.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

COTTAGE 7B WALSH WAY



Key plan of building 7B location



Original building structural core outlined in red

This 950sqft building was built in 1928 and contains 3 bedrooms and 2 bathrooms. The original property was addressed 7 Walsh Way within parcel 43-135. This residence was occupied seasonally until 2011. This location also has a shed structure at the rear of the lot, that was not evaluated.

The cottage has wood stud walls clad in painted wood shingles, and all window and door penetrations are assumed to be original. Painted wood shutters are present on the majority of windows, but are secured open to the wood shingles. The cottage is built upon a wood pier foundation with a CMU frost wall above grade enclosing the partially excavated basement. The topography about this buildings footprint slopes down from East to West, with the base of wall remaining constant. On the East side there is a low wooden retaining wall offset a couple of feet from the footprint, where the base of wall is within a few inches of the ground grade. The structural core measures at 20'x30', with the secondary hip roof structural core measuring at 10'x20'. The structure is laid out as 2 rows of piers at 5'6" on center, supporting 2x6s and 2 rows of 4x6 beams. This building has a primary hip roof, with a hip extension off of the front, and a shed roof off of the back. There is a shingled eyebrow canopy extending off of the secondary hip roof with a curved wooden fascia. The entire roof structure is finished with asphalt shingles, and there are no gutters or downspouts present. Behind the building there is an access hatch in the ground with a membrane roof assembly. The interior of this cottage is painted plaster with a baseboard and crown trim. Each of the two bathrooms has ceramic tile terminating at a bull nose partway up the wall. This building floor base is softwood, and has a few floor finish types, mainly two types of wood boards. Other floor finishes include vinyl sheets, and two types of tile. This location has one kitchen containing a stove/oven, counter-top sink, and refrigerator. There are two bathrooms within this cottage, one containing a sink, bathtub/shower, and toilet. The second bathroom is a half bath containing a sink and toilet only. At the rear of the building there is a stand up shower stall accessed from the exterior. There is a gas heating system in the form of a wall furnace in this building. A brick chimney is present at the center of the structure, with an unused plugged connection for a stove flu.



Front view of cottage, CMU foundation has two window penetrations just above grade. The paint is peeling throughout.



The cottage has gutters at every eave, but some downspouts are missing, and all aluminum is failing.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7B WALSH WAY



South elevation with access door to crawl space/basement is to the left. Most windows are without storm window protection.



North elevation, bedroom addition to the left has with damaged window and peeling paint.



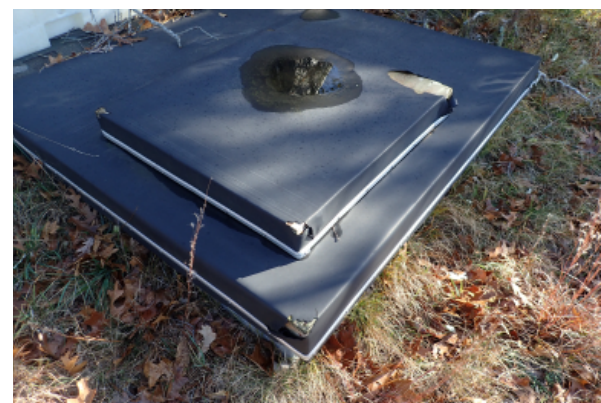
Shingled eyebrow canopy over front entry is rotted and failing. The fascia board is damaged and rotting at the entire perimeter of the roof. The wood deck is not worth saving.



Patched asphalt shingle roof past it's useful life.



Poorly constructed addition with degraded asphalt shingled low pitched shed roof.



Membrane roof assembly nearby building similar to other membrane roof constructions on the property. Failure at the corners and edges indicates age and needs replacing.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7B WALSH WAY



Deck addition framing supported by the CMU foundation at one side and piers at the other.



View inside crawl space/basement.



CMU foundation wall at grade, with brick patching seen in the corner.



Insufficient wood retaining wall set back from building face.



Worn and damaged sheet flooring.



Hardwood flooring needs restoring, and has a slight pitch indicating foundation settlement.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

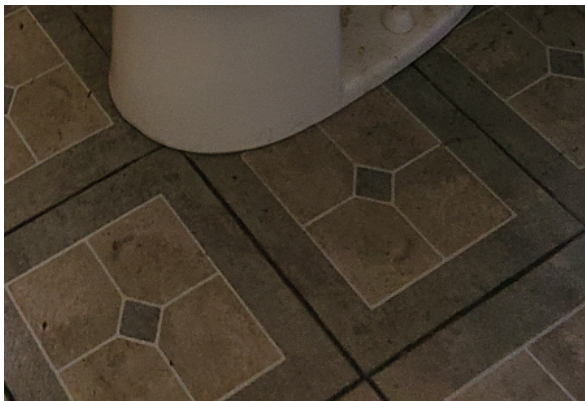
7B WALSH WAY



Sheet tile flooring in full bathroom. Tiles have become unsecured in areas and failing.



Buckled wood flooring in one of the bedrooms due to water damage.



Sheet tile flooring in half bathroom, is crumbling at the edges and seems.



Painted plaster wall with corner and base trim, with trim board at about 3' above finish floor. Paint shows signs of mold growth and the seams between panels have become visually apparent.



Tile wall finish in full bathroom, terminating in a tile bull nose and has painted plaster above.



Painted plaster wall with base board trim and crown molding. Trim around window frame is beginning to separate from the wall, and needs replacing. Window hardware at the top is damaged and must be removed.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

7B WALSH WAY



Interior wall with severe water infiltration and resultant mold.



Tile wall finish in half bathroom, terminating in a tile bull nose and has painted plaster above.



Half bath with sink and toilet. Sink fixture is non compliant.



Full bath with toilet, sink, and bathtub. Sink fixture is non compliant, and bathroom layout is unacceptable by code.



Counter sink, with non compliant hardware.



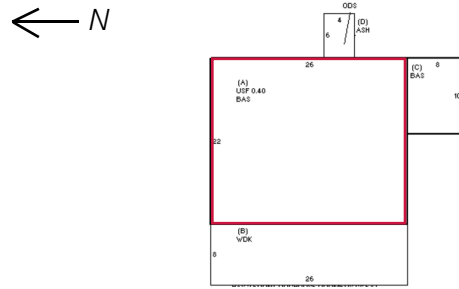
Oven/stove fixture and refrigerator. Both require replacing due to age.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

10 WALSH WAY



Key plan of building 10 location



Original building structural core outlined in red

This 881sqft building, 652sqft footprint, was built in 1940 and contains 3 bedrooms and 1 bathroom. The original property was addressed 10 Walsh Way at 0.974 acres within parcel 43-10. This residence was occupied seasonally until 2003. This location also has three shed structures along the edge of the property, that were not evaluated. The walls of this cottage are wood stud, and faced with wooden shingles, with vertical trim at each corner. The cottage is built upon a pier foundation with a structural core of 22'x25', and extending underneath the bump out footprint. The open foundation space is enclosed in wood panels and shingles. Each pier is supplemented with two courses of CMU on grade, and there are loose shims between beams and piers. The floor is framed with 2x6s, 4x6 beams, and 2 rows of light framing. This cottage has 2 gable roofs, the primary with 2 dormers, and are clad in asphalt shingles. The rakes are flush with the wall face with a wooden fascia board at each location. There are aluminum gutters and downspouts at the front eave locations. There is a small shed roof at the rear covering an outdoor shower stall, that is also asphalt shingled. This cottage interior is finished with painted plaster throughout, with baseboard trims in every room, and chair rail trim in the bedrooms. The cottage's first floor structure is softwood covered with vinyl sheet, and ceramic tile in the bathroom. The loft area is exposed wooden floor sheathing, with areas of loose vinyl sheets. There is one kitchen at this location that includes a oven/stove, refrigerator, and sink. The single bathroom has a toilet, sink, and attachment for a standing tub. Located at the rear of the building there is a stand up shower accessed from the exterior.



View of front of building and porch addition.



Unpainted cedar shingle siding in fair to poor conditions dependent upon wall orientation.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

10 WALSH WAY



Subtitle



North elevation shows staining indicating water damage at each window sill.



Asphalt roof above kitchen addition shows insufficient roofing coverage.



Rotted Integral wood rain gutter and downspout are rusting and failing.



Roof from the interior of the second level. Water damage can be seen, as well as ripples indicating further damage and settling.



Asphalt roof generally is failing, and the shower stall addition has failed at the connection to the main structure.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

10 WALSH WAY



View of foundation pier, wood siding, wood foundation skirt, and brick supports. Foundation is insufficient for this building, and was not intended to support two levels.



View of foundation pier exposed at one corner.



Rotting wooden access hatch to foundation crawl space, and remnants of CMU retaining wall.



Rotting wooden foundation enclosure at grade.



Sheet flooring at building threshold is damaged down into the floor sheathing and crumbling.



Piece made sheet flooring crumbling at the edges. Multiple layers of flooring can be observed in the area at the top of this photo. The area at the bottom has large areas where the flooring has crumbled to reveal the floor sheathing.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

10 WALSH WAY



Tile flooring with failing grout joints and cracked tiles.



Sheet flooring and board flooring at second level, crumbling and failing from age.



Kitchen addition, paint is chipping and peeling throughout and water damage can be seen at the windows.



This window stuck open, exposing the interior to the elements.



Painted plaster wall with trim at base, mid, top, and about doorways. Paint is yellowing due to age.



Dormer condition at the second floor. Chipping paint and insufficient framing about window.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

10 WALSH WAY



Kitchen addition windows, single paned and damaged bug netting.



Kitchen with refrigerator, stove/oven, and in counter sink. Both the stove/oven and refrigerator are outdated and need replacing.



Missing bathtub fixture.



Toilet fixture and sink, the layout of this bathroom is non-compliant with accessibility codes.



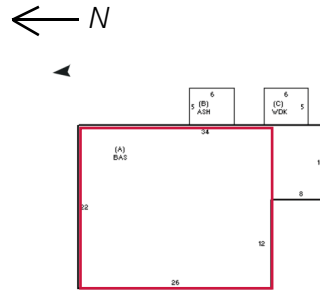
In counter sink, with missing and non compliant hardware. Cabinet hardware is also non compliant.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

13 WALSH WAY



Key plan of building 13 location



Original building structural core outlined in red

This 881SF Sears and Roebuck kit home was constructed in 1940 and contains three bedrooms, a living room, kitchen and a single bathroom. This residence was occupied seasonally until 2007. The building has wood stud walls clad in painted wood shingles, and vertical trim boards at each corner.

This location includes the water main utilities shed and three electrical meter conduits by the Western side of the lot, these have not been evaluated. The cottage is built upon a foundation with a main core 24'x26', with a deck of 2x6s, and a bump out structure. The foundation is made up of 16" CMU crawl space walls on the left hand side, and on the other side is wood piers with above grade exposure. There is an access hatch to below the framing, and this space is enclosed by the CMU bearing wall and wood panels at the base of wall. The roof at this location is a main gable roof structure with an extension with a smaller footprint. The roof finish is asphalt shingle, and there are aluminum gutters and downspouts at the two eaves. The rake is flush with the wall, and has a wood fascia board. The interior has painted plaster walls throughout, with wood baseboard trim. The hardwood flooring is covered in most areas with vinyl sheet flooring except in the loft. The kitchen is equipped with a propane fueled range without an exhaust hood, a sink, and a refrigerator. The single bathroom contains a bathtub, toilet, and sink. At the rear of the cottage there is an exterior accessed enclosed stand up shower. In the loft at the ceiling peak there is an Internet router remaining.

A centrally located propane fired furnace is present, but it's current operational state is not known.



Front elevation of the building, concrete steps with insufficient railing, and original windows that need replacing.



North elevation, cladding shows mold growth and paint has peeled from almost 50% of this face.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

13 WALSH WAY



View showing wooden steps into kitchen addition that are rotting due to age, and an exterior accessed shower stall attached to the back of the building.



Southern face of the building kitchen addition with newer windows than the rest, but still insufficient due to age.



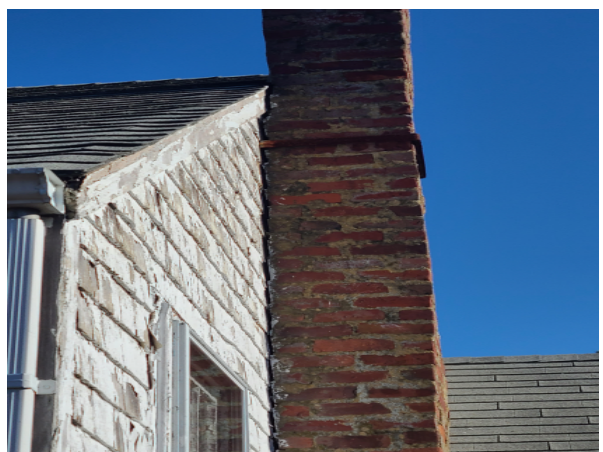
Asphalt shingle roof showing nonconformities and failure of adhesion in places.



North side peeling paint and rotted window sill. Window lacks storm.



Asphalt shingle roof is past it's useful lief. with small addition above shower stall. Bricks can be seen holding down the edges of the corners of the addition roof.



Wood rake without metal drip edge and little remaining paint. The chimney is detached itself from the building.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

13 WALSH WAY



Wood retaining wall set back from building foundation.



CMU perimeter foundation with grade build up, and insufficient water mitigation.



Access panel to crawl space



Access to foundation crawl space, the foundation of CMU and wood members can be seen.



Uneven flooring transition between two rooms.



Sheet flooring in bedroom, evidence of water damage, and is crumbling at the edges due to age.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

13 WALSH WAY



Sheet flooring, worn down to the floor sheathing in areas and crumbling at the edges.



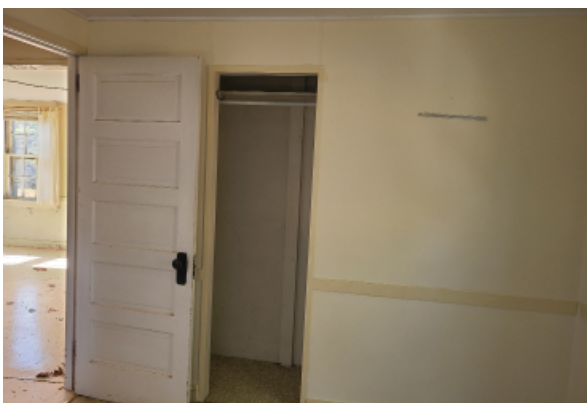
Second level flooring is exposed wood boards.



Painted plaster walls with crown molding. Paint is yellowing and peeling.



Sloped ceiling condition below stairs, enclosed with plaster and painted to match.



Painted plaster wall with trim around doorway, base of wall, and chair rail height. Paint is yellowing and chipping.



Variable wall heights at second level with trim board at borders, paint is chipping and peeling throughout.

1 | ARCHITECTURAL ASSESSMENT OF EXISTING BUILDINGS

13 WALSH WAY



View of kitchen including stove/oven fixture, refrigerator, and in counter double sink. The stove/oven and refrigerator are outdated.



Toilet fixture in non compliant location.



Sink fixture with non compliant hardware and uninsulated non-compliant piping below.



Internet router that is in good condition at roof pitch.

2 | HAZARDOUS MATERIAL INVESTIGATION

LIMITED ASBESTOS SAMPLING

In response to the proposed renovation/demolition activities at the Site, Weston & Sampson performed limited sampling of asbestos-containing materials (ACMs). Sampling was limited to visible, accessible materials present in significant quantities. The purpose of the sampling was to develop budgetary estimates for hazardous materials abatement that may be required as part of renovation/demolition activities.

Numerous suspect ACMs were observed within each cottage. Suspect materials included flooring, gypsum wall systems, roofing and window sealants. Despite the age of the cottages the roofing appeared to have been installed within the past +/- 20 years. Not every material was sampled but rather representative samples were collected in a screening process to evaluate the likely presence of ACMs within the cottage buildings. Asbestos was identified in flooring materials within Cottages 3, 7 and 7B.

Given the age of the cottages and the numerous renovations to each additional ACMs are likely present. A thorough asbestos inspection will be required prior to actual renovation/demolition.

The asbestos sampling was performed by Massachusetts-licensed asbestos inspector Mr. Craig Miner (license No.: AI000014) on December 22, 2021. A total of 22 samples of suspect asbestos-containing materials were collected. We performed the bulk sampling in the subject area according to methods outlined in the U.S. Environmental Protection Agency (EPA) guidance document titled, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Document No. 560/5-85/024). Samples were analyzed by EMSL Analytical, Inc. in Woburn, Massachusetts. The results of the sampling are summarized on the next page.

COST ESTIMATE

Weston & Sampson developed cost estimates using current abatement prices and are based on the limited data collected. Abatement costs are subject to local market conditions and will also be affected if multiple phases of abatement are conducted compared to a single project.

Abatement would only be required for damaged materials or materials impacted by renovation. Should a redevelopment work scope not require a gut rehabilitation, thereby limiting required abatement, the overall costs may be reduced. Below are estimated costs for ACM abatement at each cottage. Assumed ACM contingency costs are to address other possible ACM materials such as tank/pipe insulation, sealants, roofing, etc.

Cottage	Known ACM	Assumed ACM contingency	Total
3	Kitchen linoleum \$2,200	\$2,500	\$4,700
5	-	\$2,500	\$2,500
6	-	\$2,500	\$2,500
7	Mastic on parquet flooring \$4,500	\$2,500	\$7,000
7A	-	\$2,500	\$2,500
7B	Floor tile \$3,800	\$2,500	\$6,300
10	-	\$2,500	\$2,500
13	-	\$2,500	\$2,500
Estimated Total			\$30,500

2 | HAZARDOUS MATERIAL INVESTIGATION

SAMPLING RESULTS

Sample ID	Description	Location	Analytical Result (% Asbestos)
01A	Tar paper under siding	Cottage #3 exterior	NAD
02A	Green linoleum	Cottage #3 kitchen	15% Chrysotile
03A	Floral pattern linoleum	Cottage #5	NAD
04A	Joint compound	Cottage #5	NAD
05A	Paper under siding	Cottage #5 exterior	NAD
06A	Joint compound	Cottage #7B	NAD
07A	12"x12" Floor tile	Cottage #7B	2% Chrysotile
08A	12"x12" Floor tile mastic	Cottage #7B	NAD
09A	Hexagon linoleum	Cottage #7A	NAD
10A	Mastic on parquet flooring	Cottage #7	8% Chrysotile
11A	Pebble pattern linoleum	Cottage #7	NAD
12A	Joint compound	Cottage #7	NAD
13A	Paper under siding	Cottage #7	NAD
14A	Window glazing compound	Cottage #7 exterior	NAD
15A	Linoleum – 1 st layer	Cottage #6	NAD
16A	Linoleum – 2 nd layer	Cottage #6	NAD
17A	Tar paper roofing	Cottage #6 exterior	NAD
18A	Linoleum	Cottage #13	NAD
19A	Joint compound	Cottage #13	NAD
20A	Linoleum	Cottage #10	NAD
21A	Joint compound	Cottage #10	NAD
22A	Window glazing compound	Cottage #10	NAD

3 | SANITARY SYSTEM RECOMMENDATIONS

SEPTIC FEASIBILITY

The "Walsh Properties" property found on Walsh Way in Truro MA consist of eight (8) cottages that are located on six (6) individual lots on Walsh Way.

The properties address consists of:

- 3 Walsh Way – One (1), one (1) Bedroom unit
- 5 Walsh Way – One (1), one (1) Bedroom unit
- 6 Walsh Way – One (1), two (2) Bedroom unit
- 7 Walsh Way:

oOne (1), two (2) Bedroom unit

oTwo (2), three (3) Bedroom Units

- 10 Walsh Way - One (1), three (3) Bedroom unit
- 13 Walsh Way - One (1), one (1) Bedroom unit

In Total, on six (6) different parcels, there are a combined (13) Bedrooms, established on approximately 345,042 SF of land (combining six parcels), or 7.92 acres.

Properties have not seen regular flows and are dormant. We are told the buildings contain cesspools, which are likely to not be compliant and are an antiquated form of sewerage disposal.

SITE CONSTRAINTS & FEASIBILITY

The properties labeled above fall within a Zone II Confined Aquifer Protection Zone, as established by Mass DEP. This zone is a nitrogen sensitive zone that is intended to prevent high density and high nitrogen loading activities within an area that is subject to producing the drinking water for the community.

This constraint will limit the number of bedrooms that would be allowed on the site(s). The minimum requirement for area to bedroom is 10,000 SF / Bedroom.

In this case, the property would be eligible for 34 bedrooms based on the above-mentioned parameters. However, this would not be granted by right. The town officials may require special variances or lot merging to achieve this number of bedrooms on this parcel.

3 | SANITARY SYSTEM RECOMMENDATIONS

STUDY OUTCOME

The intent of this study is to examine the property with three different septic replacement options:

Scenario #1: Replace in kind.

Proposing to install a system at each individual building that would service only the current number of bedrooms recognized by the accessors office today.

Scenario #2: Replace with Centralized System.

Proposing to install (1) Septic system to fall on (1) Parcel of land. There would be a central collection system that would take the sewerage to (1) centralized septic tank, and pump or distribute to a field. This would eliminate the need for (1) system per property.

Scenario #3: Maximum Feasibility for the Site.

Proposing to install (1) centralized septic system, that would be able to handle the maximum number of bedrooms, thirty four (34) for this site under the nitrogen loading requirement.

The goal is to provide the Town with an understanding of septic options, with 2022 pricing, and the potential options for investment in this site, related to the septic.

REFERENCE CODES

- 310 CMR 15.000: THE STATE ENVIRONMENTAL CODE, TITLE 5: STANDARD REQUIREMENTS FOR SITING, CONSTRUCTION, INSPECTION, UPGRADE AND EXPANSION OF ON-SITE SEWERAGE TREATMENT AND DISPOSAL SYSTEM AND FOR THE TRANSPORT AND DISPOSAL OF SEPTAGE.
- TOWN OF TRURO BOARD OF HEALTH REGULATIONS – May 18, 2021

SITE EVALUATION

In review of the current site, we have found the following items:

1. The soils found on this site are consistent with Kames, Eskers, Outwash Plains, Kame Terraces, which contain glacial outwash and sandy glaciofluvial deposits. This results in fast percolation rates (less than 2 MPI), and deep ground water. Providing optimal conditions for septic systems.
2. No wetland appear to be in the vicinity of the septic area.
3. Private wells are unknown and should be researched. A recommended minimum of 150FT should be kept from a private well head.
4. Properties are found within a Zone II Well Head Protection Zone, but not a Zone I Well Head Protection Zone.
5. Site topography consist of grades as high as 94.00 to 60.00, based on NAVD88.

3 | SANITARY SYSTEM RECOMMENDATIONS

SITE OPTIONS AND COST BREAKDOWN

Scenario #1:

Installing a Septic System per property.

- Properties, #3, #5, #6, #10, #13 Walsh Way would consist of the following items:
 - o 1500 Gallon (2) Compartment Tank
 - o Distribution Box
 - o 4" Sch 40 PVC Piping
 - o Precast Flow Diffuser leaching field on a washed stone bed & stone sides for increased leaching area.
 - o Minor Tree clearing
 - o Loam and Seeding
- Approximate Cost per site would be \$29,000.00 per property.

- Property #7 Walsh Way consist of (3) buildings would have (1) Septic System tied into (3) buildings.
 - o 2,000 Gallon (2) Compartment Tank
 - o Distribution Box
 - o 4" Sch 40 PVC Piping
 - o Precast Flow Diffuser leaching field on a washed stone bed & stone sides for increased leaching area.
 - o Minor Tree clearing
 - o Loam and Seeding
- Approximate Cost for this system would be approximately \$35,000.00

Total Cost for Scenario #1 would be approximately: \$180,000.00

3 | SANITARY SYSTEM RECOMMENDATIONS

SITE OPTIONS AND COST BREAKDOWN - CONTINUED

Scenario #2:

Installing a common septic with a collection system:

This would consist of installing the following:

- (1) 5,500 Gallon Two Compartment tank
- (1) 2,500 Gallon Pump Chamber
- (4) Sewer Manholes
- Approx. 800 LF of 8" PVC Sewer Lines
- Approximately 600 LF of 6" PVC Sewer Lines
- 2,100 SF leaching field.
- Loam and Seed
- Tree Removal
- Pavement Replacement

Cost for this system shall be approximately: \$645,000.00

Please see detail attached at the end of this section for proposed site layout

Scenario #3:

Installing a common septic with a collection system based on (34) Bedrooms.

This would consist of installing the following:

- (1) 13,000 Gallon Two Compartment tank
- (1) Nitrogen Treatment System
- (1) 5,000 Gallon Pump Chamber
- (4) Sewer Manholes
- Approx. 800 LF of 8" PVC Sewer Lines
- Approximately 600 LF of 6" PVC Sewer Lines
- 5,100 SF leaching field.
- Loam and Seed
- Tree Removal
- Pavement Replacement

Cost for this system shall be approximately: \$784,000.00

3 | SANITARY SYSTEM RECOMMENDATIONS

CONCLUSION

The pricing including is based on 2022-dollar values, using 2021 Mass DOT weighted rates for road construction, also, including Massachusetts Prevailing Wage Rates. Further evaluation shall be performed by providing site topography and test pit analysis.

Also, domestic drinking water to the properties should be considered. The properties are serviced by individual well systems. It is advantageous to create (1) well, to service the new dwellings and install new water piping to the buildings.

Please find the cost estimate on the next page for the proposed scenarios, and the proposed concept layout for the septic and sewer collection system.

3 | SANITARY SYSTEM RECOMMENDATIONS

COST ESTIMATE - SEPTIC REPLACEMENT

Item Requirement	Scenario #1	Scenario #2	Scenario #3
(per system)			
Engineering	\$ 4,500.00	\$ 25,000.00	\$ 30,000.00
Permit Fees	n/a	n/a	n/a
Tree Clearing & Grubbing	\$ 2,500.00	\$ 12,000.00	\$ 15,000.00
Septic Tank	\$ 3,000.00	\$ 15,000.00	\$ 30,000.00
Pump Chamber	n/a	\$ 10,000.00	\$ 13,000.00
Nitrogen Treatment	n/a	n/a	\$ 30,000.00
Pumping Equipment	n/a	\$ 19,000.00	\$ 19,000.00
Leaching Field @ \$13 / SF	\$ 6,500.00	\$ 27,300.00	\$ 66,300.00
PVC Piping Installation	\$ 1,500.00	\$ 6,500.00	\$ 7,500.00
Sewer Manholes - \$5000 ea	n/a	\$ 20,000.00	\$ 20,000.00
Sewer 8" PVC Collection Pipe - \$180 / LF	n/a	\$ 144,000.00	\$ 144,000.00
Sewer 6" PVC Lateral Pipe - \$165 / LF	n/a	\$ 99,000.00	\$ 99,000.00
Pavement Replacement - \$140 / SY	n/a	\$ 70,000.00	\$ 70,000.00
Loam and seeding	\$ 2,000.00	\$ 6,500.00	\$ 8,500.00
Soft Costs	\$ 20,000.00	\$ 454,300.00	\$ 552,300.00
General Conditions 10%	\$ 2,000.00	\$ 45,430.00	\$ 55,230.00
Permits 2%	\$ 440.00	\$ 9,994.60	\$ 12,150.60
Profit 10%	\$ 2,244.00	\$ 50,972.46	\$ 61,968.06
Construction Contingency 15%	\$ 3,702.60	\$ 84,104.56	\$ 102,247.30
Total	\$ 28,386.60	\$ 644,801.62	\$ 783,895.96

4 | COST PROJECTIONS

OVERVIEW:

The eight (8) habitable cottage structures started out as Sears and Roebuck Company kit homes which were delivered to the Walsh Parcel site and constructed on minimal foundations of dry laid concrete block and timber piers. The cottages were constructed between 1900 and 1940. They were always meant for seasonal summer occupancy and have uninsulated walls and attics and either lack heat entirely, or have small centralized propane or oil fueled space heaters. Over the last few decades, the property and it's buildings have fallen into disuse, with no cottage being occupied after 2017. Lack of continuous occupation, upkeep and needed repairs to the aging structures has resulted in leaking roofs, broken windows, peeling paint on the majority of painted surfaces, and decaying wood building fabric. Due to the impermanent nature of the building foundations, settling has occurred resulting in sloping floors and out-of-plumb walls with visible cracks. Water ingress from roof leaks and voids in the exterior building envelope have damaged interior surfaces and has supported the growth of mold in many areas. All of the existing structures have cesspool septic systems, which are not currently legal.

The interior layouts of the cottages are obsolete and haphazard due to age and modifications and additions that have been constructed over time. The additions are even more poorly constructed than the main house volumes and are past the point of salvaging. The electrical infrastructure is outdated with ungrounded duplex outlets and no GFCI outlets present near wet areas such as bathrooms or near kitchen sinks. A preliminary hazardous materials survey indicated the presence of asbestos containing materials (ACM's) in some flooring types. It is assumed that other ACM's will be present in roofing cements, caulking, and pipe wrap. It is also assumed that due to the age of the structures, lead paint will be prevalent on most interior and exterior painted surfaces. As they exist, none of the existing cottages is currently habitable without substantial repair and renovations.

COST PROJECTION OPTIONS:

Three possible scenarios were investigated for providing year-round housing on the Walsh Parcel.

1. Option #1- Rehabilitation: The first scenario, outlined on the next page, looks at what it would take to rehabilitate the existing structures to make them suitable for year-round occupation. The number of bedrooms and bathrooms would remain the same as what currently exists.

2. Option #2 -Total Reconstruction. The second option looks at removing all existing cottages in their entirety and replacing them "in-kind" with new construction.

The cost estimate for both options #1 and #2 assumes an average size of 763 SF to simplify the comparison, which is the current average SF size of the eight properties at the Walsh Parcel.

3. Option #3- Phase Construction and Renovation: This option is a hybrid of Option #1 and Option #2 that rehabilitates (2) two of the existing cottages and replaces the remaining (6) six cottages with new structures. This option increase the overall square footages of the new buildings to an average of 900SF to accommodate additional bedrooms, provide handicap accessible clearances and to provide larger overall accommodations than what currently exists.

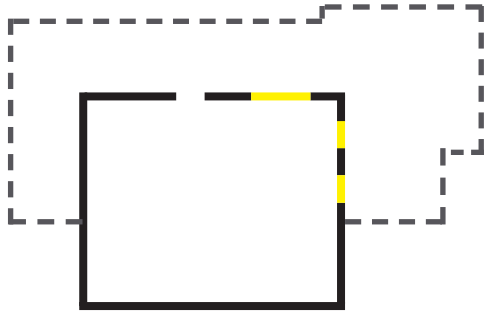
1



Demolition of add-on structures



2

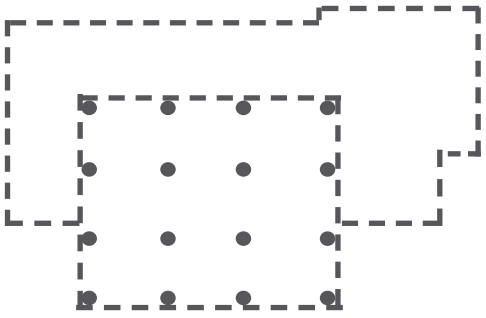


Reinforcements and repairs on existing structure

3



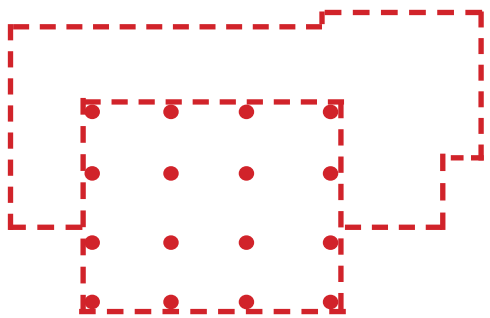
Structure lifted and moved to temporary site to expose foundation



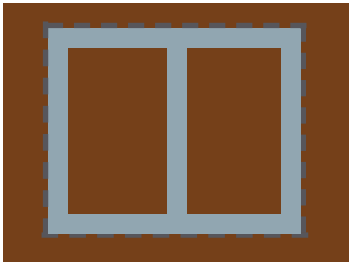
4



Foundation demolition

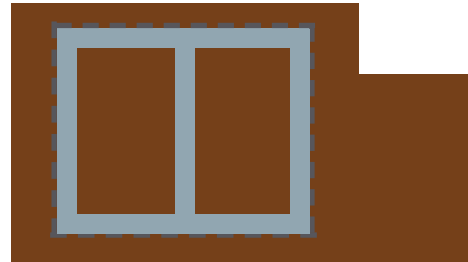


5



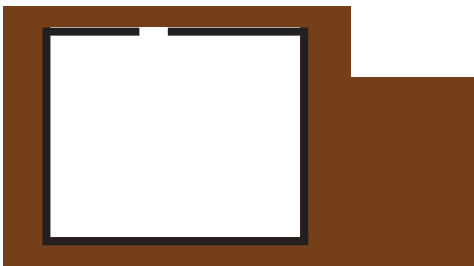
New foundation excavated, poured, and infilled

6



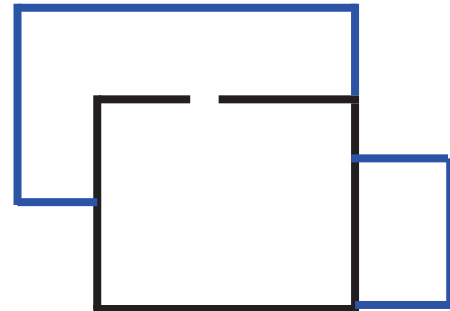
Site excavation for new septic system and utility improvements and installation

7



Building structure placed on new foundation

8



Exterior rehabilitation:

- Removal and replacement of cedar shingles.
 - Insulate exterior walls and attic spaces for 4-season habitation.
 - Replacement of windows and doors
 - Roof repair and replacement
 - Replace stairs/ramps. Replace additions on new foundations.
- (Blue outline)

Interior rehabilitation:

- Refinish/repair all interior walls. Widen door openings.
- New bathroom and kitchen appliances and fixtures.
- ADA compliant renovations at selected residences.
- New heating, cooling and electrical systems.

4 | COST PROJECTIONS

CONSTRUCTION COST SUMMARY

Options	Avg SF	\$/SF	\$/ Bldg	Total Estimated Construction Cost
Approach Option 1: Rehabilitation	763	\$464	\$354,286	\$2,834,288
Total Project Cost Including Owner's Soft Costs		\$565	\$431,164	\$3,449,312
Approach Option 2: Total Reconstruction	763	\$612	\$466,846	\$3,734,768
Total Project Cost Including Owner's Soft Costs		\$743	\$566,800	\$4,534,400
<i>*Total Project Cost Scenario #2 Septic</i>		\$898	\$685,234	\$5,481,872
Approach Option 3: Phased Construction & Rehabilitation				
Phase 1 - Rehabilitation	881	\$429	\$378,382	\$756,764
Total Project Cost Including Owner's Soft Costs		\$522	\$460,200	\$920,400
<i>*Total Project Cost Scenario #2 Septic</i>		\$657	\$578,635	\$1,157,270
Phase 2 - Demolition and New Construction	900	\$565	\$508,192	\$3,049,152
Total Project Cost Including Owner's Soft Costs		\$685	\$616,622	\$3,699,732
<i>*Total Project Cost Scenario #2 Septic</i>		\$817	\$735,051	\$4,410,306
Approach Option 3: Combined Totals				
Phase 1 and 2 Total Project Cost Including Owner's Soft Costs		\$645		\$4,620,132
<i>*Phase 1 and 2 Total Project Cost Scenario #2 Septic</i>		\$777		\$5,567,576

This cost estimate was produced from revised study documents prepared by Weston & Sampson and their design team dated January 21, 2022. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

***Note - Within the last 18 months, bids have been affected with uncontrollable material costs and availability and lack of labor. Contractors are at risk of overages on materials due to lack of supplies and longer leads. These conditions have resulted in increases in bids for all trades and general bids anywhere from 10% to 15% depending on project type and materials.**

This estimate includes all direct construction costs, general contractor's overhead and profit and design contingency.

Bidding conditions are expected to be Chapter 149 public bid by general contractors, and filed sub-bid sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

Items not included in this estimate are:

Land acquisition, feasibility, and financing costs

All Furnishings, Fixtures and Equipment

Items identified in the design as Not In Contract (NIC)

Items identified in the design as by others

Owner supplied and/or installed items (e.g. draperies, furniture and equipment)

Rock excavation; special foundations (unless indicated by design engineers)

Utility company back charges, including work required off-site

Work to Town streets and sidewalks (except as noted in this estimate)

Construction or occupancy phasing or off hours' work, (except as noted in this estimate)

Hazardous or unsuitable soil replacement and removal

4 | COST PROJECTIONS

STUDY COST ESTIMATE APPROACH OPTION 1: REHABILITATION

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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Approach Option 1: Rehabilitation

3 Walsh way	580	sf				
5 Walsh way	520	sf				
6 Walsh way	674	sf				
7 Walsh way	803	sf				
7A Walsh way	818	sf				
7B Walsh way	950	sf				
10 Walsh way	881	sf				
13 Walsh way	881	sf				
				763	<i>sf average</i>	

1 Average Cost

<u>Demolition</u>						
Removal and mitigation of hazardous materials	1	ls	4,000.00	4,000		
Demolition of add-on structure and exterior structures as they apply (porches, stoops, steps)	1	ls	5,000.00	5,000		
Demolition of foundation assembly and retaining walls	1	cd	4,500.00	4,500		
<u>Building Temp Move</u>						
Reinforcement and repairs as needed to preserve structure during removal from building pad	1	ls	5,000.00	5,000		
Preparation of temporary site	1	ls	5,000.00	5,000		
Lift existing structure and move to temporary site	763	sf	8.00	6,104		
<u>Sitework</u>						
Excavation of foundation footprint	1	cd	4,500.00	4,500		
New septic excavation and construction	1	ls	28,386.00	28,386		
Utility improvements and installation - water, electrical	1	ls	10,000.00	10,000		
Final site finishes	1	ls	7,500.00	7,500		
<u>Foundations</u>						
Construction of new foundation	763	sf	20.00	15,260		
<u>Building Final Move</u>						
Placement of structure on new foundation	763	sf	8.00	6,104		
<u>Exterior</u>						
Removal and replacement of cedar shingles	980	sf	15.00	14,700		
Replacement of windows and doors as needed	8	ea	600.00	4,800		
Roof repair and replacement	850	sf	10.00	8,500		
New porches/decks	1	ea	15,000.00	15,000		
<u>Interior</u>						
Bath reno	1	ea	7,500.00	7,500		
Kitchen reno	1	ea	15,000.00	15,000		
Interior walls, door upgrades, finishes	763	sf	10.00	7,630		
HVAC	763	sf	8.00	6,104		
Electrical	763	sf	10.00	7,630		
SUBTOTAL					188,218	

TRADE TOTAL 188,218

BONDS	2%	\$3,764
PERMIT	2%	\$3,764
GC - GENERAL CONDITIONS, REQUIREMENTS AND GL INSURANCE	20%	\$37,644
GC - OVERHEAD & PROFIT	10%	\$23,339
DESIGN AND PRICING CONTINGENCY	20%	\$51,346
ESCALATION AND BIDDING MARKET CONDITIONS	15%	\$46,211

TOTAL CONSTRUCTION Average \$/sf \$464 \$354,286

Soft costs to include the following:

AE Basic Services (10% of Construction Value)	10%	\$35,429
AE Special Services (1.5% of Construction Value)	1.5%	\$5,314
Owner's Project Management Fees (4% of CV)	4%	\$14,171
Advertisement Cost Allowance		\$250
Legal Cost Allowance		\$2,000
Independent Testing Allowance		\$2,000
Construction Contingency (5% of CV)	5%	\$17,714
Soft Costs Total		\$76,878

TOTAL PROJECT Average \$/sf \$565 \$431,164

4 | COST PROJECTIONS

STUDY COST ESTIMATE OPTION 2: TOTAL RECONSTRUCTION

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL BASE COST	TOTAL COST (* Septic Scenario #2)	
Approach Option 2: Total Reconstruction								
3 Walsh way	580	sf						
5 Walsh way	520	sf						
6 Walsh way	674	sf						
7 Walsh way	803	sf						
7A Walsh way	818	sf						
7B Walsh way	950	sf						
10 Walsh way	881	sf						
13 Walsh way	881	sf						
				763 sf average				
1 Average Cost								
<u>Demolition</u>								
Removal and mitigation of hazardous materials	1	ls	4,000.00	4,000				
Make-safe and demolition of structure and add-ons	763	sf	15.00	11,445				
Demolition of foundation assembly and retaining walls	1	cd	4,500.00	4,500				
<u>Sitework</u>								
Excavation of foundation footprint	1	cd	4,500.00	4,500				
New septic excavation and construction	1	ls	28,386.00	28,386			52,214	
Utility improvements and installation - water, electrical	1	ls	15,000.00	15,000				
Final site finishes	1	ls	10,000.00	10,000				
<u>Foundations</u>								
Construction of new foundation	763	sf	20.00	15,260				
<u>Structure</u>								
Wood framed structure	763	sf	65.00	49,595				
<u>Exterior</u>								
Cedar shingles & trim	980	sf	15.00	14,700				
Windows	6	ea	600.00	3,600				
Doors	2	ea	900.00	1,800				
Asphalt roof	850	sf	10.00	8,500				
Porches/decks	1	ea	15,000.00	15,000				
<u>Interior</u>								
Bathroom	1	ea	8,500.00	8,500				
Kitchen	1	ea	15,000.00	15,000				
Wall finishes	640	sf	10.00	6,400				
Ceilings	763	sf	5.00	3,815				
Floors	763	sf	10.00	7,630				
Doors	6	ea	600.00	3,600				
HVAC	763	sf	10.00	7,630				
Electrical	763	sf	12.00	9,156				
SUBTOTAL					248,017	Base Cost	*Septic Scenario #2	
TRADE TOTAL						248,017	300,231	
				BONDS	2%	\$4,960	2%	\$6,005
				PERMIT	2%	\$4,960	2%	\$6,005
				GC - GENERAL CONDITIONS, REQUIREMENTS AND GL INSURANCE	20%	\$49,603	20%	\$60,046
				GC - OVERHEAD & PROFIT	10%	\$30,754	10%	\$37,229
				DESIGN AND PRICING CONTINGENCY	20%	\$67,659	20%	\$81,903
				ESCALATION AND BIDDING MARKET CONDITIONS	15%	\$60,893	15%	\$73,713
TOTAL CONSTRUCTION						Average \$/sf	\$612	466,846
Soft costs to include the following:								
				AE Basic Services (10% of Construction Value)	10%	\$46,685	10%	\$56,513
				AE Special Services (1.5% of Construction Value)	1.5%	\$7,003	1.5%	\$8,477
				Owner's Project Management Fees (4% of CV)	4%	\$18,674	4%	\$22,605
				Advertisement Cost Allowance		\$250		\$250
				Legal Cost Allowance		\$2,000		\$2,000
				Independent Testing Allowance		\$2,000		\$2,000
				Construction Contingency (5% of CV)	5%	\$23,342	5%	\$28,257
				Soft Costs Total		\$99,954		\$120,102
TOTAL PROJECT						Average \$/sf	\$743	\$566,800
						Base Cost	*Septic Scenario #2	\$898
								\$685,234

4 | COST PROJECTIONS

STUDY COST ESTIMATE APPROACH OPTION 3: PHASED CONSTRUCTION & REHABILITATION

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	TOTAL COST (*Septic Scenario #2)
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Approach Option 3: Phased Construction & Rehabilitation

Phase 1 - Rehabilitation

10 Walsh way	881	sf					
13 Walsh way	881	sf					
			881	<i>sf average</i>			

1 Average Cost

<u>Demolition</u>							
Removal and mitigation of hazardous materials	1	ls	4,000.00	4,000			
Demolition of add-on structure and exterior structures as they apply (porches, stoops, steps)	1	ls	5,000.00	5,000			
Demolition of foundation assembly and retaining walls	1	cd	4,500.00	4,500			
<u>Building Temp Move</u>							
Reinforcement and repairs as needed to preserve structure during removal from building pad	1	ls	5,000.00	5,000			
Preparation of temporary site	1	ls	5,000.00	5,000			
Lift existing structure and move to temporary site	881	sf	8.00	7,048			
<u>Sitework</u>							
Excavation of foundation footprint	1	cd	4,500.00	4,500			
New septic excavation and construction	1	ls	28,386.00	28,386			52,214
Utility improvements and installation - water, electrical	1	ls	10,000.00	10,000			
Final site finishes	1	ls	7,500.00	7,500			
<u>Foundations</u>							
Construction of new foundation	881	sf	20.00	17,620			
<u>Building Final Move</u>							
Placement of structure on new foundation	881	sf	8.00	7,048			
<u>Exterior</u>							
Removal and replacement of cedar shingles	1,150	sf	15.00	17,250			
Replacement of windows and doors as needed	10	ea	600.00	6,000			
Roof repair and replacement	1,000	sf	10.00	10,000			
New porches/decks	1	ea	15,000.00	15,000			
<u>Interior</u>							
Bath reno	1	ea	7,500.00	7,500			
Kitchen reno	1	ea	15,000.00	15,000			
Interior walls, door upgrades, finishes	881	sf	10.00	8,810			
HVAC	881	sf	8.00	7,048			
Electrical	881	sf	10.00	8,810			
SUBTOTAL					201,020	Base Cost	*Septic Scenario #2

TRADE TOTAL					201,020		253,234
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BONDS	2%	\$4,020	2%	\$5,065
PERMIT	2%	\$4,020	2%	\$5,065
GC - GENERAL CONDITIONS, REQUIREMENTS AND GL INSURANCE	20%	\$40,204	20%	\$50,647
GC - OVERHEAD & PROFIT	10%	\$24,926	10%	\$31,401
DESIGN AND PRICING CONTINGENCY	20%	\$54,838	20%	\$69,082
ESCALATION AND BIDDING MARKET CONDITIONS	15%	\$49,354	15%	\$62,174

TOTAL	<i>Average \$/sf</i>	\$429	\$378,382	\$541	476,668
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Soft costs to include the following:

AE Basic Services (10% of Construction Value)	10%	\$37,838	10%	\$47,667
AE Special Services (1.5% of Construction Value)	1.5%	\$5,676	1.5%	\$7,150
Owner's Project Management Fees (4% of CV)	4%	\$15,135	4%	\$19,067
Advertisement Cost Allowance		\$250		\$250
Legal Cost Allowance		\$2,000		\$2,000
Independent Testing Allowance		\$2,000		\$2,000
Construction Contingency (5% of CV)	5%	\$18,919	5%	\$23,833
Soft Costs Total		\$81,818		\$101,967

TOTAL PROJECT	<i>Average \$/sf</i>	\$522	\$460,200	\$657	\$578,635
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Base Cost *Septic Scenario #2

4 | COST PROJECTIONS

STUDY COST ESTIMATE APPROACH OPTION 3: PHASED CONSTRUCTION & REHABILITATION

DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	TOTAL COST (*Septic Scenario #2)
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Approach Option 3: Phased Construction & Rehabilitation

Phase 2 - Demolition and New Construction

3 Walsh way	900	sf					
5 Walsh way	900	sf					
6 Walsh way	900	sf					
7 Walsh way	900	sf					
7A Walsh way	900	sf					
7B Walsh way	900	sf					
			900	sf average			

1 Average Cost

Demolition

Removal and mitigation of hazardous materials	1	ls	4,000.00	4,000			
Make-safe and demolition of structure and add-ons	763	sf	15.00	11,445			
Demolition of foundation assembly and retaining walls	1	cd	4,500.00	4,500			

Sitework

Excavation of foundation footprint	1	cd	4,500.00	4,500			
New septic excavation and construction	1	ls	28,386.00	28,386			52,214
Utility improvements and installation - water, electrical	1	ls	15,000.00	15,000			
Final site finishes	1	ls	10,000.00	10,000			

Foundations

Construction of new foundation	900	sf	20.00	18,000			
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Structure

Wood framed structure	900	sf	65.00	58,500			
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Exterior

Cedar shingles & trim	1,150	sf	15.00	17,250			
Windows	8	ea	600.00	4,800			
Doors	2	ea	900.00	1,800			
Asphalt roof	1,000	sf	10.00	10,000			
Porches/decks	1	ea	15,000.00	15,000			

Interior

Bathroom	1	ea	6,500.00	6,500			
Kitchen	1	ea	15,000.00	15,000			
Wall finishes	720	sf	10.00	7,200			
Ceilings	900	sf	5.00	4,500			
Floors	900	sf	10.00	9,000			
Doors	8	ea	600.00	4,800			
HVAC	900	sf	10.00	9,000			
Electrical	900	sf	12.00	10,800			
SUBTOTAL					269,981	Base Cost	*Septic Scenario #2

TRADE TOTAL	Average \$/sf	\$565	\$269,981	\$674	\$322,195
BONDS	2%		\$5,400	2%	\$6,444
PERMIT	2%		\$5,400	2%	\$6,444
GC - GENERAL CONDITIONS, REQUIREMENTS AND GL INSURANCE	20%		\$53,996	20%	\$64,439
GC - OVERHEAD & PROFIT	10%		\$33,478	10%	\$39,952
DESIGN AND PRICING CONTINGENCY	20%		\$73,651	20%	\$87,895
ESCALATION AND BIDDING MARKET CONDITIONS	15%		\$66,286	15%	\$79,105
TOTAL		Average \$/sf	\$565		\$606,474

Soft costs to include the following:

AE Basic Services (10% of Construction Value)	10%	\$50,819	10%	\$60,647
AE Special Services (1.5% of Construction Value)	1.5%	\$7,623	1.5%	\$9,097
Owner's Project Management Fees (4% of CV)	4%	\$20,328	4%	\$24,259
Advertisement Cost Allowance		\$250		\$250
Legal Cost Allowance		\$2,000		\$2,000
Independent Testing Allowance		\$2,000		\$2,000
Construction Contingency (5% of CV)	5%	\$25,410	5%	\$30,324
Soft Costs Total		\$108,430		\$128,577

TOTAL PROJECT	Average \$/sf	\$685	\$616,622	\$817	\$735,051
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Base Cost *Septic Scenario #2

4 | COST PROJECTIONS

PROS AND CONS:

Option #1 Renovation and Repair of Existing Walsh Cottages

As outlined in the architectural assessment section, the existing Walsh cottage buildings are between 80-120 years old and have always been used as seasonal cottages. On balance, they have been abandoned for the better part of the last decade and have not been properly maintained over that time.

Most major structural and architectural building components will require repair and upgrading to make them suitable for year-round habitation. All windows and doors will require replacement, structural reinforcement and upgrades will be required to meet new building code requirements and the entire building envelope will require replacement with new roof, siding and trim. Extensive repair and replacement of interior finishes, fixtures, mechanical and electrical systems will be required. It is anticipated that latent building conditions will be uncovered that will add to the cost of rehabilitation work. Selective hazardous material abatement and removal will be required and proper access for house moving equipment and a space for relocating the existing cottages while new foundations are constructed will need to be provided. If option #1 is elected by the town, the anticipated pros and cons are as follows:

Pros:

1. Continuation of the existing building use and building footprints would reduce permitting and overall project timeline.
2. Estimated lowest overall total project cost.
3. Shortest construction duration.
4. Rehabilitation and repair preserves original character of Sears and Roebuck "Kit" homes.

Cons:

1. Possibility of unexpected additional costs due to latent existing building conditions uncovered during construction such as rotted, undersized or damaged framing members or unexpected hazardous materials
2. After all work is completed, the resulting buildings will still be undersized and poorly laid out relative to what one would expect for a newly constructed house and might not be attractive to potential future occupants.
3. Additional costs for preparing buildings for lifting and/or relocation in order to install new foundations.

The total project cost, including owner soft costs, to rehabilitate the eight (8) existing Walsh Cottages is estimated to be \$3,224,573 with an average cost of \$403,072 per unit.

Option #2: Total Reconstruction

This option looks at demolishing all of the existing Walsh Cottages and replacing them "in-kind" with new construction of the same general size.

Pros:

1. Simplified design and construction not having to accommodate existing building conditions..
 2. Shortest expected construction duration.
 3. Potential to reorganize the buildings on the site for better, create common open space.
 4. This option includes an addition to the base cost (\$55,625/Unit) to combine septic systems into one centralized system. A centralized system could be located strategically for ease of installation, maintenance and distance from the nearby Zone 2 Confined Aquifer Protection Zone.
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4 | COST PROJECTIONS

PROS AND CONS:

Option #2 Continued

Cons:

1. Potentially longer permitting timeline than for Option #1.
2. Highest SF cost off all options
2. After all work is completed, the resulting new buildings will be undersized relative to what one would expect for a newly constructed house.

The total project cost for building new single family residences, similar in size to what exists, is estimated at \$4,192,712 with an average cost of \$524,089 per unit.

With the addition of a centralized septic system, the total project cost is estimated to be \$4,970,600 with an average cost of \$621,325 per Unit.

Option #3: Combination of Phased Construction and Rehabilitation.

The last option looks at phasing the work on the site by first renovating #10 and #13 Walsh way, two of the cottages considered to be in the best condition, and then constructing six (6) new houses with an average footprint of 900 SF. The work could take place over multiple years or phases as town funding becomes available. The larger building footprints would allow for units with additional bedrooms, larger living areas, and maneuvering clearances required for persons with disabilities. The overall total project cost for this option is estimated at \$4,307,822 with an average blended cost of \$538,477 per unit.

Pros:

1. Option to phase rehabilitation and construction of new residences over multiple construction seasons.
2. Potential to reorganize the buildings on the site for better, create common open space.
3. Larger building footprints to maximize living area and number of occupants per units.
4. Low overall SF cost due to larger size of units.
4. This option includes an addition to the base cost (\$55,625/Unit) to combine septic systems into one centralized system. A centralized system could be located strategically for ease of installation, maintenance and distance from the nearby Zone 2 Confined Aquifer Protection Zone.

Cons:

1. Potentially longer permitting timeline than for Option #1.

3 | SANITARY SYSTEM RECOMMENDATIONS

SEPTIC / COLLECTION SITE LAYOUT

