TOWN OF BOXFORD

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MEMORANDUM

To: Matt Coogan, Town Administrator
From: Chris Olbrot, PE, DPW Superintendent/Town Engineer
Date: 4/25/2023

RE: DPW Garage Backup information

Background

The Town has been exploring building a new DPW facility dating back 17 years to 2006. The plan was again revisited in 2018. The report states: *"Given the building's age, the accelerated structural deterioration resulting from the installation of a vapor barrier, and poor condition of employee facilities, replacement of this facility should be a priority for Boxford. Of all the buildings reviewed in the Master Plan, the DPW facility is, by far, in the worst condition."* (Attachment)

At the 2022 Annual Town Meeting (ATM) the town appropriated $50,000 for the design and permitting of an access drive to the site adjacent to the solar field, previously identified in the aforementioned report as: "The site ended up being the only real option to develop". The access drive plan was approved by the Conservation Commission on May 4, 2023.

Current Status

For the next step in building the new DPW facility, MA procurement laws require that the town solicit Request for Proposals (RFP) for Engineering and Designer services. In preparation for a 2023 ATM appropriation for these engineering services, the town began to research an appropriate cost. After receiving two independent preliminary cost estimates of approximately $1.4 million for full services, the town elected not to seek funding for the entirety of the design. Instead, the town is seeking a more modest appropriation of $248,000 for a Schematic (20% Design). The benefits of this approach are two-fold. First, it was clear that the $1.4M proposals were conservative to buffer many unknowns at this stage of the process. By appropriating funding as an iterative process, the selected engineer design team can proceed with more confidence on the remaining designing fund, thereby appropriating funds without as much contingency and to avoid over-burdening the tax payer unnecessarily. Second, this allows this important town project to proceed over the next year and make steady, yet important progress.

As stated previously, it's been nearly 20 years since the town first contemplated the need to replace the facility and this design time is all the more critical in 2023. This 20% schematic design will provide critical preliminary information such as but not limited to: space needs assessment, Zoning analysis, Existing Conditions Plan, Concept Site Plan, Wetland and Geotechnical investigations, and a conceptual level estimate.

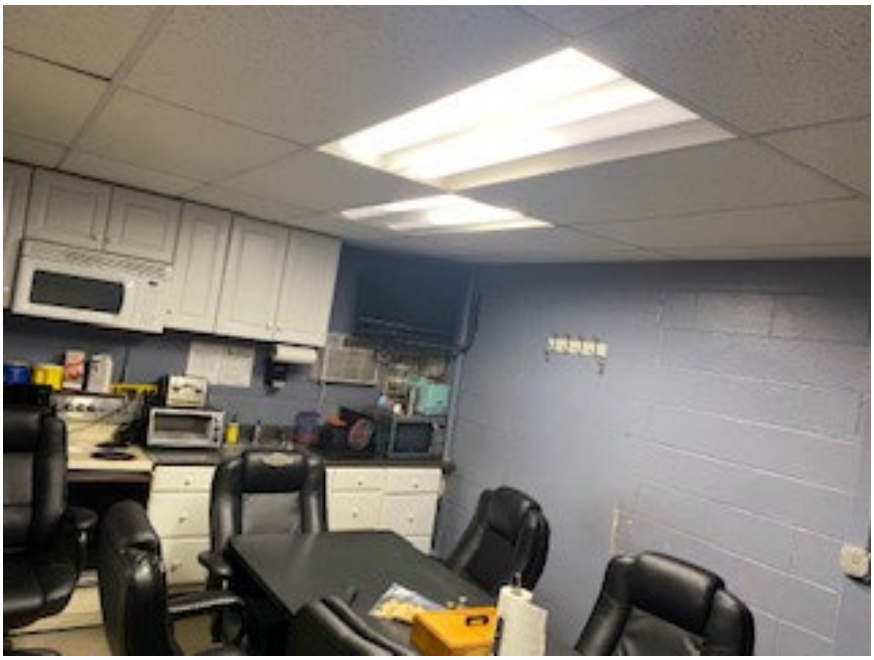
Next Steps

Should the town approve this appropriation, we would solicit an RFP for designer selection services. An engineering/architectural firm would submit proposals to a town selection committee and the most qualified designer would be selected based on the committee's aggregated scoring. A designer fee "not to exceed" the appropriation would then be negotiated. By budget season next year, we would hope to fund the rest of the design with a similar process and fully design and permit the project through the various town boards and commissions with funding from the 2024 ATM. Finally, we would seek funding for the construction of the new facility at the 2025 ATM with the goal of opening the new facility sometime in late 2026 or early 2027.

Inadequate Storage for Trucks and Equipment

Difficult to Navigate and Unsafe Cramped Storage

Shower and Locker Room Doubles as a Janitor's Closet



Kitchen/Dining Area does not Accommodate Staff

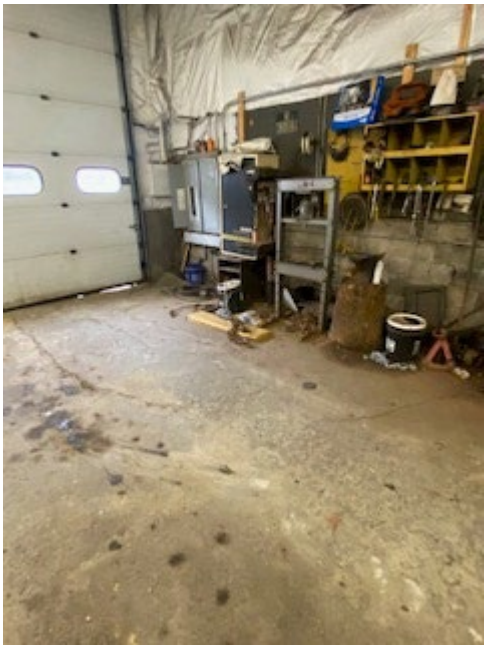
No Accommodations for Plan Storage and Retention

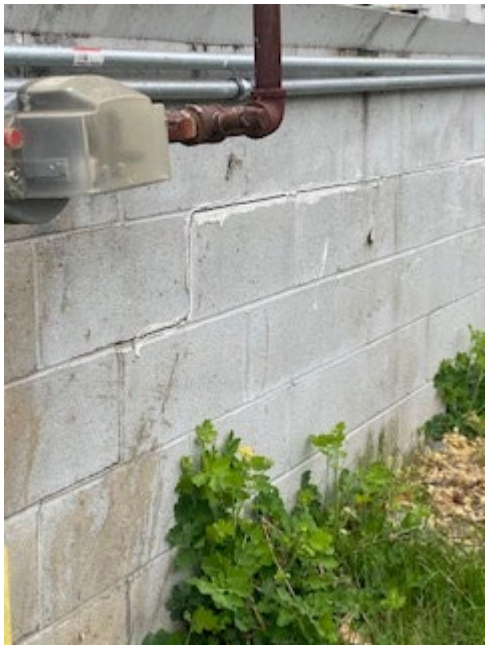
Office Trailer has no ADA Accommodations, Meeting Space Nor Adequate climate controls

Rotting foundation attracts wild animals and causes excessive moisture/mold in the office trailer

Rusted metal frame and roof exposes building to rain, snow and ice

Holes in the walls allow for animals to nest throughout the building

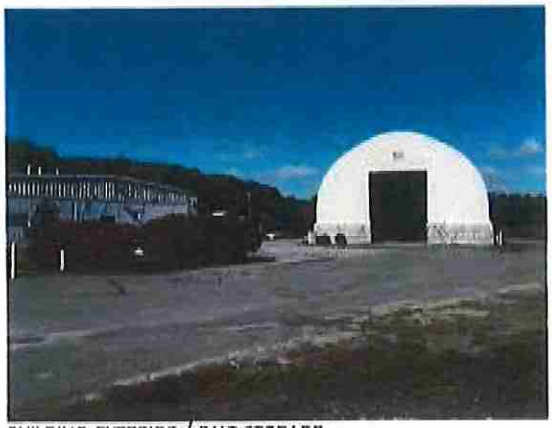




Cracks in the foundation and slab due to poor subsoil cause increased risk of instability of building


Leaking Water Causes excessive moisture, mold and damage

Ventilation Fan Never properly vented to the outside contributes to hazardous fumes within the building


BUILDING EXTERIOR / SALT STORAGE

DEPARTMENT OF PUBLIC WORKS

Address	7B Spofford Road
Year Constructed	1970
Use	Municipal
Building GSF	5,500
Number of Floors	1
Construction type	Pre-engineered Metal
Average rating (scale of 0-5)	2.15
Overall Condition Rating	Poor - Fair

GENERAL DESCRIPTION

The Department of Public Works (DPW) facility resides on a large parcel of Town owned property on the north side of Ipswich Road. It sits on a relatively flat site and includes a main garage, administrative building, salt barn, vehicle storage, brine system, fueling station, and yard storage. The parcel also houses the Spofford Pond School, Police Department, Town Hall, Town Transfer Station, and recreation fields.

In 2006, the town commissioned a feasibility study for a new DPW facility. The final report recommends a 22,379 square foot facility located on the existing site. The build-able area of the current DPW site may be restricted due to unsuitable soils and vernal pools, as documented in a 1996 environmental study. If possible it is recommended that the current site be reused given its central location in the town.

Given the building's age, the accelerated structural deterioration resulting from installation of insulation/vapor barrier, and poor condition of employee facilities, replacement of this facility should be a priority for Boxford. Of the buildings reviewed in the Limited Facilities Master Plan, the DPW facility is, by far, in the worst condition.

FACILITY ISSUES AND NEEDS SUMMARY

Site	**Site constraints include adjacent Town Hall, athletic fields, other circulation on the municipal campus, documented vernal pool locations, and potential soils remediation requirements.**
Structural	**Pre-engineered metal building has outlasted its useful life and should be replaced. Recent insulation improvements resulted in a condensation problem which was noted to be accelerating the deterioration of the structural steel.**
Building Envelope	**Original building was not insulated and has been recently retrofitted with blown in insulation and an interior vapor barrier. The office program occupies a converted construction trailer. All exterior wall assemblies should be replaced by higher performing alternatives to reduce energy consumption. The roof was not observed during this review.**
Building Interior	**Typical with many DPW facilities, there is a lack of interior finishes. The finishes that exist are in poor condition and are in need of replacement.**
Life Safety	**The fuel island should be assessed to determine if it is too close to the building exit locations. Life safety systems are limited and should be upgraded.**
ADA	**There is no accessible entry or egress from the office trailer.**
Mechanical	**No significant issues or needs were observed for this category.**
Plumbing	**Systems and fixtures do not meet ADA compliance requirements.**
Electrical	**Electrical system is in fair condition. Emergency power generator is old but is apparently functional.**

Town of Boxford

New DPW Facility

Schematic Design Scope of Services

DESIGNER SERVICES

Task I - Review and Confirmation / Concept Development

1.1 Update Operational and Space Needs Assessment

a. The Consultant shall attend a kick-off meeting with the Town and Owner's Project Manager (OPM) to review the project goals, the scope of tasks to be undertaken, procedural protocols, and the nature and schedule of deliverables.

b. Meet with key staff from the DPW to review and update the initial facility programming documents.

i. Meet with DPW management, division supervisory staff, and workforce staff to review the building and site program requirements for a new facility.

ii. Based on the results of the existing documentation review and staff interviews, update the existing programming sketches for each major functional space to be incorporated into a new facility.

iii. Confirm any site components to be incorporated into a new facility including fueling, bulk material storage, salt storage, circulation, and parking.

iv. Update the Facility Space Needs Matrix which details each space required for the facility, including operational spaces and support spaces.

v. Review the updated programming sketches and matrix with the Town and OPM.

vi. Incorporate comments from the Town and OPM into an updated DPW Facility Space Needs Matrix.

c. Verify the vehicle / equipment inventory list.

d. Based on the results of the facility program verification tasks, the consultant shall update space needs assessment into a matrix that will summarize the total area required.

1.2 Zoning Analysis: The Consultant shall prepare a zoning analysis for the site utilizing the current local zoning regulations (allowable use, setbacks, lot coverage, height, floor area ratio, etc.). The analysis shall identify dimensional restrictions as well as any anticipated special permits or variances required to meet the requirements of the zoning bylaws.

1.3 Existing Building Conditions Plan Development: The Consultant shall prepare existing conditions measured plans for the existing buildings designated to be relocated for adaptive reuse to support the operations (tension membrane structures).

1.4 Concept Plan Development: Prepare building and site plan alternatives for the site to confirm the most cost effective and efficient building and site configuration for supporting the operations.

a. Utilize the results of the space program to verify building and site alternatives for the site. The site plans shall show the layout of driveways, buildings, vehicle fueling facility, circulation, canopies, salt shed, and parking.

b. All concepts shall be reviewed with the Town and OPM and comments incorporated accordingly to create preferred site alternatives for each site.

1.5 Geotechnical Investigation: Based on the preferred alternatives and the review of existing site documentation, the consultant shall conduct a geotechnical subsurface investigation for the proposed site. Work shall include hiring a drilling contractor and advancing soil borings over a two-day period to identify soil conditions for construction of the proposed facilities and to measure depth to groundwater. Drilling shall be performed using Hollow Stem Auger techniques. Work shall also include digging test pits to visually observe subsurface conditions on the site and to determine suitability of subsurface conditions to accept stormwater systems. Quantity and locations of test pits shall be selected following the initial drilling program and preliminary design of the stormwater system. The scope is based upon the Town providing the equipment and operator to dig the test pits. The consultant shall provide a field representative to document observations of the subsurface conditions at the test pits for up to two (2) days.

1.6 Environmental Preliminary Assessment: The Consultant shall conduct a DEP file search to identify previous site releases and remediation / close-out status. Based on the file review, the Consultant shall prepare a memorandum summarizing the results of the file review and recommendations for future soil and groundwater sampling (if appropriate).

1.7 Hazardous Building Materials Assessment: The Consultant shall conduct a hazardous building materials investigation of the existing DPW facility for lead, asbestos, PCBs, and other hazardous building materials to document potential hazardous building material remediation and the associated cost to abate the hazardous building materials within the existing DPW facility scheduled to be demolished. The results shall be assembled in a final report documenting the location and quantity of hazardous building materials. It should be noted that this investigation will not identify all potential hazardous building materials as many materials are concealed and cannot be accessed for testing at this time. The assessment is limited to hazardous building materials (existing building materials) within the building and does not include site investigations.

1.8 Survey of Preferred Site: The Consultant shall prepare an existing conditions survey for the existing site including a topographic and utility survey. The survey shall be limited to the proposed development area.

Topographical Survey:

- Permanent horizontal and vertical ground control points will be set and noted on survey map.
- Topography will depict a 1 - foot contour interval.
- Locate above ground visible physical features, including utilities (covers, frames, grates, poles, valves and wires), buildings (if any), edges of pavement, concrete, stock piles, light poles, bollards, curbing and standalone trees.

Utility Investigation:

- Locate underground utility markings (provided by others)
- Structure inverts, identify pipes (direction, size and material)
- Collect utility record mapping from town to apply to drawing

1.9 Conceptual Level Estimate: Utilizing the data obtained from the Review & Confirmation exercise, prepare an estimate of probable cost using cost per square foot pricing based on similar recent facility projects.

Task II – Schematic Design (25% design level)

2.1 Schematic Design Plans: Utilizing the preferred concept, the Consultant shall create schematic level plans of sufficient detail to show all interior spaces, exterior spaces, and operational adjacencies. Documents shall consist of conceptual level drawings including:

a. Existing conditions plan

b. Site Construction/Layout Plan

c. Preliminary grading and drainage plan

d. Architectural floor plans

e. Code review plan

f. Mezzanine plans

g. Building elevations

h. Architectural typical wall section

i. Industrial Equipment plan showing general equipment locations and descriptions including an equipment list for input / confirmation / approval of the Owner.

2.2 Schematic Design Narratives: The drawings shall be supplemented with narratives for geotechnical / foundation, structural, mechanical (HVAC and plumbing), electrical, and fire protection.

2.3 The Consultant shall submit to the Town for approval three (3) half size sets and an electronic copy of said schematic design documents on or before the date or time for submission specified in the Notice to Proceed or any supplement thereto, unless the Consultant shall have obtained from the Town an extension of time in writing

2.4 During the Schematic Design process, the consultant shall meet with the Planning/Zoning Official and the Conservation Commission Agent, if applicable, to review the proposed program and identify any permitting limitations which need to be addressed by the design. The consultant shall also identify any local design review boards that may need to be consulted during the next phase of design.

2.5 Schematic Design Cost Estimate: Utilizing the Schematic Design Documents, the consultant shall prepare an internal conceptual cost estimate for the preferred building and site alternative. The estimate shall be based on square foot costs from similar recent DPW projects and shall identify potential soft costs associated with the project including design contingencies, construction contingencies, architectural and engineering design fees, OPM fees, and escalation.

2.6 Independent Cost Estimate: The Consultant shall utilize the services of an independent cost estimating firm to prepare an independent schematic design cost estimate. The cost estimate shall include, but is not limited to, information technology, telecommunications, furniture, fixtures, and equipment.

2.7 Upon completing the independent estimate, the Consultant shall review and reconcile the Engineer's estimate with the independent estimate accordingly.

2.8 The Consultant shall attend up to one (1) meeting per month with the Town and OPM to discuss the progress of the project. Throughout the Schematic Design Phase, the Consultant shall meet with the Owner on a regular basis, which shall be no less frequently than every two weeks, to review and discuss the development of design.

Town of Boxford

New DPW Facility

Schematic Design Fee of Services

FEE OF SERVICES

The following is a summary of the proposed lump sum fees associated with the scope of services identified above. The final manhours, staff, hourly rates, and fee distribution among disciplines may vary based on staff availability, schedule, and conditions and design tasks identified through the normal design development process of the project. The total fee will not exceed the fee schedule below unless written authorization is granted by the Town.

TASK	FEE
Task I - Review and Confirmation / Concept Development Task 1.1 – Update Operational and Space Needs Assessment: $18,000 Task 1.2 – Zoning Analysis: $3,000 Task 1.3 – Existing Building Conditions Plan Development: $4,000 Task 1.4 – Concept Plan Development: $23,000 Task 1.5 – Geotechnical Investigation: $20,000 Task 1.6 – Environmental Preliminary Assessment: $3,000 Task 1.7 – Hazardous Building Materials Assessment: $6,000 Task 1.8 – Survey of Preferred Site: $18,000 Task 1.9 – Conceptual Level Estimate: $3,000	$98,000
Task II – Schematic Design (20% design level)	$150,000
TOTAL	$248,000