

Outline Description of Work:

Norwell Municipality Facility/ Feasibility Study
Norwell, MA
Revised September 19, 2019

PHASING

It is anticipated that the project will be an occupied phased construction, with all work to be performed under a single work contract sequenced in such a way as to permit the Municipality Facility and yard functions to remain fully operational throughout the duration of all project work. The Feasibility Estimate therefore includes construction costs for construction operations in or adjacent to an occupied building/ site, such as temporary enclosures/ protection and/ or other General Conditions costs. Ancillary costs for moving of furnishings, equipment, or costs that may be required for utilization of potential swing-spaces for temporary occupancy throughout the duration of construction are excluded. See the Feasibility Estimate for detailed assumptions, along with soft-costs inclusions and exclusions.

Phase 1

1. General Scope of Work (Phase 1)

- 1.1 Work will consist of construction of a one-story approximate 16,436 GSF addition to the existing DPW shed to provide new vehicle and equipment storage, employee work areas, employee toilets, changing facilities, offices and meeting rooms. An open mezzanine with connecting stair in the new vehicle storage garage is proposed as an *Alternate Scope of Work*.
- 1.2 All work is anticipated to be performed in sequence such that existing occupied spaces can remain in use to the greatest extent possible. Allowances for any anticipated added General Conditions cost(s) related to sequencing have been considered in the cost estimate.
- 1.3 Mechanical, Electrical, Plumbing and Fire Protection (MEP/FP) Work will include new fire suppression, fire alarm, and HVAC and electrical power and distribution system(s) and equipment to service areas within the Limit of Work, plumbing for new toilet facilities, and a new generator. Systems/ infrastructure will be sized/ planned to accommodate future Phase(s) of work. Refer to Vlachos Associates report and recommendations for further detail.
- 1.1 Site work and site improvements will include site utility work required for recommended MEP/FP work new/ reconfigured parking areas and drive aisles including pavement, curbing, walkways, site lighting, plantings. As an *Alternate Scope of Work*, certain areas of site work/ site preparation are proposed to be self-performed under this Phase -- refer to details of the cost estimate.
- 1.2 Presence of hazardous materials has been determined within the Limit of Work Area(s). Hazardous materials removal, procedures and/ or abatement are considered in the cost estimate/ scope of anticipated work. Refer also to FLI Environmental Report and Recommendations.

2. Demolition (Phase 1)

- 2.1 Removal of portions of exterior wall for new opening(s) as indicated in the drawings, or as required for placement of new work.
- 2.2 Portions of the existing building may need to be cut or partially altered during this Phase for placement of new Mechanical, Electrical, Plumbing or Fire Protection (MEP/FP) systems. Refer also to MEP/FP Report and Recommendations prepared by Vlachos Associates, Inc.

3. Sitework (Phase 1)

- 3.1 Site utility work to include new sprinkler main and electrical service upgrade as well as oil separator/ 'tight tank(s)' required by code for the new vehicle storage garage. Refer also to MEP/FP Report and Recommendations.
- 3.2 Site preparation will include removal of existing construction, equipment, pavement or temporary barriers and is expected to be self-performed.
- 3.3 Re-grading as required.
- 3.4 Site drainage systems are not anticipated/ excluded from the scope of work.
- 3.5 New parking areas and drive aisles as illustrated including paving and striping. Assume granite or concrete curbing.
- 3.6 Concrete walkways at front and rear entrances; as illustrated; allow 5' wide.
- 3.7 Plantings at new parking areas or adjacent to the new addition/as illustrated; loam & seeding or patching of existing bituminous asphalt pavement in other disturbed areas, as indicated.
- 3.8 Provide (7) exterior light poles and footings. Assume LED; 18' high.
- 3.9 Relocation of overhead utility lines to be placed underground/ removal of utility poles to be performed under a separate work contract by the Owner.
- 3.10 As an *Alternate Scope of Work*, certain portions of site preparation and site construction work listed above are proposed to be self-performed– refer to details of the cost estimate.

4. Concrete (Phase 1)

- 4.1 Poured-in-place reinforced concrete foundation walls, footings and slab. Assume standard spread footings; no atypical subsurface conditions. Allow for 8" reinforced slab for heavy equipment loading in vehicle storage garage. Heavy duty oil/ stain penetrating sealer in vehicle garage/ workshop areas.
- 4.2 Refer also to Souza, True + Partners structural report and recommendations.

5. Metals (Phase 1)

- 5.1 Structural steel for new addition (employee areas/ administrative areas): Assume metal decking over open web joist roof framing; square tube or wide flange steel columns with standard wide-flange horizontal members at perimeter - refer also to Souza, True + Partners structural report and recommendations.
- 5.2 Exterior canopy and supports (at entrance); galvanized painted steel. C-channel or square tubular shapes- refer also to Souza, True + Partners structural report and recommendations.
- 5.3 Structural steel for new addition (vehicle storage garage): Standard structural steel columns/ beams/ frame and roof/ wall support assembly as provided by the PEMB (Pre-Engineered Metal Building) manufacturer - refer also to Souza, True + Partners structural report and recommendations.
- 5.4 (Painted) steel bollards in quantities as shown in the drawings. Allow 8" O.D. steel; suitable for heavy weight vehicle protection.
- 5.5 (*Alternate Scope of Work – Mezzanine*): Standard structural steel beams with steel rod or tube hangar support assembly; with galvanized metal decking as provided by the PEMB (Pre-Engineered Metal Building) manufacturer - refer also to Souza, True + Partners structural report and recommendations.

6. Wood/ plastics (Phase 1)

- 6.1 Rough framing/ lumber to include miscellaneous concealed blocking/ supports.
- 6.2 Architectural millwork to include the following:
 - A. Kitchen cabinets (Employee Break Room/ 'Muster'). Standard grade laminated wood base and upper cabinets (allow 13.5 LF) with 1.25" thick solid surface or quartz top.
 - B. Standard grade laminated wood base cabinets with laminated wood top/ solid wood edgeband (allow 13.5 LF at Conference Room/ Command).
 - C. Desktop and supports: ¾" plastic laminated plywood with 1.5" hardwood edgeband supported with metal wall brackets and end cleats. Allow 22 LF at Foreman's Office

7. Thermal/Moisture Protection (Phase 1)

- 7.1 Wall Insulation: New architectural insulated aluminum/ metal panel cladding system; concealed fasteners. Poly-isocyanurate core; thickness to achieve minimum R-19 or to meet or exceed energy code requirements. Allow for 2 types/ colors of panels.
- 7.2 Roof insulation (at new vehicle storage garage) Insulated roof assembly by PEMB manufacturer; 'liner' panels fully insulated to meet or exceed current energy code requirements.
- 7.3 Allow for sound attenuation at all interior partitions at offices, meeting rooms and toilets.
- 7.4 Vapor retarder. Provide underslab vapor retarder at new slab-on-grade.
- 7.5 Slab insulation. Provide rigid insulation to minimum 2 feet from perimeter below slab; minimum thickness to achieve R-10.
- 7.6 Air/ moisture barrier: (Required air/ moisture barrier provided as integral to the metal wall panel assembly system).
- 7.7 Sealants/ Caulking: Provide sealants and caulking of joints at dissimilar materials or elsewhere as required.
- 7.8 Roof: New roof/ assembly at administrative areas to be fully-adhered EPDM, 50 year warranty over tapered rigid insulation of thicknesses to achieve minimum R-30.
- 7.9 Architectural aluminum/ metal edge roof fascia/ flashing at administrative areas addition. Aluminum or metal soffit panels at underside of entry canopy; painted finish to match roof edge flashing.

8. Windows and Doors (Phase 1)

- 8.1 Window System(s) – typical for all punched openings: high-performance fixed windows/ window units; thermally-broken insulated anodized aluminum frames with 1" insulated glass; Low-E coating. Standard color.
- 8.2 Entrance Doors: Insulated aluminum wide stile with, insulated laminated safety glass ; Low E coating on inside face of exterior lite; rated for high traffic and high abuse applications. Standard color.
- 8.3 Exterior Doors: Insulated HM doors with insulated vision lite (6"x33"), thermally-broken sills; painted)
- 8.4 Roof access hatch. Provide access at new (lower) roof per code. Insulated hatch with ladder.
- 8.5 Interior doors. Assume all doors to be 3'-0" x 7'-0"; pre-finished solid core wood; quarter sawn maple. Knock down hollow metal frames, except at sidelight frame locations as illustrated. Allow for five (5) doors to have tempered or safety glazed half-door vision kits.
- 8.6 Interior vision lites: (At meeting rooms, Forman's Office, or at other locations as illustrated): non-insulated tempered or laminated safety glass; partial height (4'-0"); hollow metal frames.
- 8.7 Overhead doors. Motorized, insulated aluminum heavy duty gauge doors with insulated glazing as indicated in the drawings.

9. Finishes/ Finish Systems (Phase 1)

9.1 Interior Wall Assemblies: Metal stud framing with single layer 5/8" gypsum board with skimcoat plaster both sides for new interior partitions; extend studs to underside deck; gypsum board to 4" above finished ceiling as occurring. Provide metal stud furred wall/ furring at all perimeter wall locations, at column enclosures or where otherwise required by new layout – single layer gypsum board with skimcoat plaster on metal stud framing.

9.2 Interior finishes/ finish systems are proposed as follows:

- **TYPE 1: Foreman's Office/ Break Room/ Conference Room/ Corridors**

- Vinyl Plank (LVT); 4" vinyl base
- Gypsum board with skimcoat plaster walls; paint
- Acoustic Tile Ceiling; 2'x2' grid; value grade system

- **TYPE 2: Changing Rooms**

- Vinyl Composition Tile, 12"x12" (VCT); 4" vinyl base
- Gypsum board with skimcoat plaster walls; paint
- Acoustic Tile Ceiling; 2'x2' grid; value grade system

- **TYPE 3: Toilet Rooms/ Shower/ Laundry**

- Porcelain ceramic tile floors; 6" ceramic tile base
- Acoustic Tile Ceiling; 2'x2' grid; value grade system
- New gypsum board with skimcoat plaster walls
- Existing plaster finish/ walls to remain where occurring; paint
- Porcelain ceramic tile wainscot to 4'-0" AFF
- Acoustic Tile Ceiling; 2'x2' grid; value grade system

- **TYPE 5: Storage/ Utility Rooms**

- Sealed concrete floors
- New gypsum board with joints floted and taped; 4" vinyl base
- Exposed/painted structure and building systems

- **TYPE 6: Administrative Offices**

- Carpet tile; 24"x24"; 4" vinyl base
- Gypsum board with skimcoat plaster walls; paint
- Acoustic Tile Ceiling; 2'x2' grid; value grade system

10. Specialties (Phase 1)

10.1 Window Treatments: All window treatments are to be Owner Furnished, owner Installed.

10.2 Room signage: Allow for code-required signs, and room signage at all rooms with braille, typical.

11. Appliances/ Equipment (Phase 1)

11.1 All appliances and equipment are Owner Furnished, Owner Installed. The following existing to be re-used or new appliances/ equipment should be considered in the Owner's budget:

- Audio-visual screens and equipment
- Marker board(s)
- Tel/data equipment and wiring

- TV monitors (3)
- Kitchen appliances: refrigerator, microwave, electric range/ oven; ducted hood
- Vending machine(s)
- Industrial equipment

12. Furnishings (Phase 1)

12.1 Furnishings are Owner Furnished, Owner Installed.

13. Special Construction(Phase 1)

(Not Applicable)

14. Conveying Systems (Phase 1)

(Not Applicable)

15. Mechanical/ Plumbing/ Fire Protection Systems and Equipment (Phase 1)

15.1 Refer to Vlachos Associates, Inc. Report and Outline Scope of Work

16. Electrical Power and Lighting (Phase 1)

16.1 Refer to Vlachos Associates, Inc. Report and Outline Scope of Work

Phase 2

1. General Scope of Work (Phase 1)

- 1.1 Phase 2 Work will consist of removal of existing construction within the existing DPW shed to provide new vehicle and equipment storage and will include certain upgrades to existing MEP/FP systems, and patching/ repair of existing construction to remain.
- 1.2 Within Phase 2, construction work is anticipated to be performed in sequence such that existing occupied spaces can remain in use to the greatest extent possible. Allowances for any anticipated added General Conditions cost(s) related to sequencing have been considered in the cost estimate.
- 1.3 Building exterior and envelope upgrades to the existing DPW shed proposed as an *Alternate Scope of Work* under this Phase include:
 - Remove existing metal wall panels and insulation; replace with new insulated metal panels.
 - Structural upgrades if or as required to the existing structure for new exterior cladding work
 - Replace and/ or add new (supplement) existing roof insulation to increase R-value to meet current energy code
 - Replace overhead doors with new insulated OH doors, conforming to current energy code
- 1.4 Mechanical, Electrical, Plumbing and Fire Protection (MEP/FP) Work will include new fire suppression, fire alarm, and HVAC and electrical power and distribution system(s) and equipment to service areas within the Limit of Work, Refer to Vlachos Associates report and recommendations for further detail.
- 1.5 Site work and site improvements will include patching/ paving of existing bituminous asphalt adjacent to the building, and any miscellaneous work not yet performed under Phase 1. As an *Alternate Scope of Work*, certain areas of site work/ site preparation are proposed to be self-performed under this Phase – refer to details of the cost estimate.
- 1.6 Presence of hazardous materials has been determined within the Limit of Work Area(s). Hazardous materials removal, procedures and/ or abatement are considered in the cost estimate/ scope of anticipated work. Refer also to FLI Environmental Report and Recommendations.

2. Demolition (Phase 2)

- 2.1 Remove furnishings, fixtures, equipment, files, storage or other items from the Limit of Work area(s) to locations directed by the Owner. (By Others)
- 2.2 Remove existing interior construction at DPW shed, including mezzanine structure, interior partitions, doors, ceilings, wall and floor finishes.
- 2.3 Removal of portions of exterior wall for new opening(s) as indicated in the drawings.
- 2.4 (*Alternate Scope of Work – Exterior Building Envelope Upgrades*): Remove existing wall panels, insulation, OH doors and ceiling insulation as or if required.
- 2.5 Mechanical, Electrical, Plumbing or Fire Protection (MEP/FP) demolition is anticipated to include substantial removal of existing MEP/FP systems, equipment and devices within the Limit of Work Area(s), including: distribution wiring, light fixtures, fire alarm devices, unit heaters, and plumbing fixtures. Certain portions of existing systems/ infrastructure will remain in place to be adapted or re-used for new work/ systems, Refer also to MEP/FP Report and Recommendations prepared by Vlachos Associates, Inc.

3. Sitework (Phase 2)

- 3.1 Site utility work to include new sprinkler main and electrical service upgrade. Refer also to MEP/FP Report and Recommendations.
- 3.2 Site preparation will include removal of existing construction, equipment, pavement or temporary barriers and is to be self-performed.
- 3.3 New parking areas and drive aisles as illustrated including paving and striping. Assume asphalt curbing.
- 3.4 Plantings at new parking areas as illustrated; loam & seeding or patching of exiting bituminous asphalt pavement in other disturbed areas, as indicated.
- 3.5 As an *Alternate Scope of Work*, certain portions of site preparation and site construction work listed above are proposed to be self-performed– refer to details of the cost estimate.

4. Concrete (Phase 2)

- 4.1 Patch/ repair existing concrete slab at DPW shed. Cutting and patching only as or if required for placement of new work. Refer also to Vlachos Associates, Inc. MEP/FP report and recommendations.
- 4.2 Refer also to Souza, True + Partners structural report and recommendations.

5. Metals (Phase 2)

- 5.1 Repair damaged steel columns at DPW shed – refer also to Souza, True + Partners structural report and recommendations.
- 5.2 (*Alternate Scope of Work – Exterior Building Envelope Upgrades*): supplemental steel as required by code or required for attachment of new cladding - refer also to Souza, True + Partners structural report and recommendations.

6. Wood/ plastics (Phase 2)

- 6.1 (Not Used)

7. Thermal/Moisture Protection (Phase 1)

- 7.1 Sealants/ Caulking: Provide sealants and caulking of joints at dissimilar materials or elsewhere as required for the prevention of the passage of air, moisture and sound, and to eliminate cracks and crevices.
- 7.2 Patch existing shed roof as or if required for mechanical scope of work or new penetrations. Refer also to MEP/FP Report and Recommendations.
- 7.3 (*Alternate Scope of Work – Exterior Building Envelope Upgrades*): (At existing DPW shed walls): New architectural insulated aluminum/ metal panel cladding wall panel system; concealed fasteners. Poly-isocyanurate core; thickness to achieve minimum R-19 or to meet or exceed current energy code requirements.
- 7.4 (*Alternate Scope of Work – Exterior Building Envelope Upgrades*): (At existing DPW shed roof): New insulation batts/ blankets installed either over existing or retrofitted to replace existing. Total R-value of new installation to be R-30, or to meet or exceed current energy code requirements.

8. Windows and Doors (Phase 2)

- 10.1 Exterior Doors: Insulated HM doors with insulated vision lite (6"x33"), thermally-broken sills; painted)
- 10.2 (*Alternate Scope of Work*): *Overhead doors*. Motorized, insulated aluminum heavy duty gauge doors with insulated glazing as indicated in the drawings.

9. Finishes/ Finish Systems (Phase 2)

(Not applicable)

- 9.2 Seal existing concrete after patching. Heavy duty oil/ stain penetrating sealer.

10. Specialties (Phase 1)

(Not Applicable)

11. Appliances/ Equipment (Phase 1)

(Not Applicable)

12. Furnishings (Phase 1)

(Not Applicable)

13. Special Construction(Phase 1)

(Not Applicable)

14. Conveying Systems (Phase 1)

(Not Applicable)

15. Mechanical/ Plumbing/ Fire Protection Systems and Equipment (Phase 1)

- 15.1 Refer to Vlachos Associates, Inc. Report and Outline Scope of Work

16. Electrical Power and Lighting (Phase 1)

- 16.1 Refer to Vlachos Associates, Inc. Report and Outline Scope of Work