September 8, 2020

Project Narrative for proposed of Fire Station Addition (Draft for discussion with BOS)

Site Selection
The Bernardston Select Board made the decision to explore further the proposal to construct an addition to the existing fire station after a review of the feasibility study submitted by Stevens Associates. That study explored several options including new stations on other sites and options for adding on to the existing station on Church Street. The proposals for a completely new station on an alternative site were determined to be cost prohibitive. An addition seemed to be the most cost effective solution.

The Stevens proposal explored adding on to the east and west sides of the existing station. The Board determined that an addition on the east site would be a detriment to the historic character of the Powers Institute building by obscuring the Church Street view. The addition on the west side of the building would require rerouting a culvert that is connected to a wetland and stream that flows into the perennial waterway on the south side of Church street.

The Select Board hired Jablonski / De Vriege Architects to study the possibilities for an addition to the existing fire station. An alternative solution to the previous design proposal was developed by JDA along with the BOS and Fire department. It proposes to add a freestanding apparatus room west of the existing station connected to the existing station by a hallway that bridges over the existing culvert. The property to the west has been recently acquired by the Town and may be developed to accommodate the needed addition and parking area.

Site Considerations – Environmental
The land west of the building nearest to Church Street is located in a Riverfront Area and will require filing a Notice of Intent with the Conservation Commission to obtain a permit to develop this site. The site also contains wetlands and an intermittent stream that is connected to the perennial stream on the south side of Church Street by a corrugated metal culvert. The site wetland boundary was delineated by Wendell Wetland Services and the narrative report is attached. A narrative by Walter Cudnohufsky Associates is included describing the strategy and considerations for siting the new structure and paving areas and dealing with the required site drainage and detention issues.

The Building
A pre-engineered prefabricated steel building system is proposed as the most economical solution to expanding the existing BFD facilities. The building will be built on a 6” concrete slab with 10” concrete frost walls and reinforced concrete pilasters for steel column bearing. R-10 rigid perimeter insulation will be installed to 24” below grade.

Steel Frame – There will be (3) 20’x75’ structural bays, clear span braced structural steel bents with a 4/12 roof pitch.
Cladding - 2 ½” Insulated steel wall panels with 24 GA exterior and 26 GA interior face on 10” steel girts. R19.38 insulation total.
Roof - 24 GA Galvalume Double Lok roof with R38 Optiliner insulation system on 10” steel purlins. Gutters and downspouts will be provided at the eaves.

Doors and Windows - 14’w x 14’h insulated sectional overhead doors with glazing panels. Insulated Exterior passage doors and frames will be 16GA steel and interior HM doors and frames will be 18GA steel. Windows will be fluorocarbon finished thermally broken aluminum frames and sash.

Interior Partitions - 5/8 gypsum board on 20GA metal framing. Painted

Flooring - Vinyl tile and base in subdivided spaces.

Ceilings in subdivided spaces - 2x4 moisture resistant acoustical ceiling panels in metal suspension grid.

Storage Mezzanine - ¾” plywood decking over light gauge metal joists.

Fire Protection - NFPA fire sprinkler system throughout.

Plumbing - Provide plumbing system for toilets, shower, laundry, service sink and floor drains.

HVAC - Provide air source heat pump system with ceiling units in apparatus room and ducted system in subdivided spaces with heat recovery ventilation in subdivided spaces. Install exhaust fans in toilet rooms and shower.
Provide exhaust evacuation system for 4 diesel vehicles.

Electrical - Provide power distribution throughout building. Include emergency power transfer switch and panel. Provide suspended LED ceiling fixtures in apparatus room and troffer type LED fixtures in subdivided spaces. Provide smoke and carbon monoxide detection systems as required by code. Provide visual alarm strobes in toilets and emergency exit lighting and signage.
Install exterior site lighting for egress and parking areas.

Respectfully submitted,

Brian De Vriese AIA
September 8, 2020

Addition to Bernardston Fire Department

Re: Proposed Project Schedule (DRAFT for discussion with BOS))

Approve Project (2–4 weeks)
   1. Obtain Town approval for Fire Station Addition
      a. Select Board – Approve proceeding with project.
      b. Fire Department – Sign off on design.
      c. Appoint Building Committee
      d. Planning Board Review – Informal Review
      e. Conservation Commission – Informal Review.
      f. Board of Health – Informal Review
      g. Highway Department – Review of proposed new drive way.
      h. Public Informational Meeting – Review design and proposed funding sources.
      i. Town Meeting – Vote to approve estimated design fees and project mobilization expenses.

   2. Mobilize (6–8 weeks)
      a. Advertise for project designer and Owners Project Manager
         1. Advertise in Central Register – 3 weeks
         2. Receive and review proposals – 2 weeks
            (May hire OPM to help with designer selection)

      b. Advertise for project design team
         1. Advertise in Central Register – 3 weeks
         2. Receive and review proposals – 2 weeks
         3. Reference checks and award of contracts – 1 week

      c. Planning Board – OPM Apply for Special Permit.
      e. Board of Health – OPM acquire approval for connecting to existing septic system.
      f. Highway Department – OPM Secure sign off on driveway.

   3. Design (6–10 weeks)
      a. Schematic Design – (Based on feasibility study design)
         1. Site Plan, Floor Plan, Elevations, Sections
         2. Secure soil borings and soils analysis.
         3. Secure all survey work needed to proceed.
         4. Schematic phase cost estimate.
b. Design Development – (Consultant designer input)
   1. Site Plans – Civil, Landscape and Wetlands Consultants
   2. Architectural Floor Plan, Elevations, Sections

c. Construction Documents – (With BOS approval)
   1. Site Plans – Civil and Landscape Plans & Details
   2. Architectural Floor Plan, Elevations, Sections & Details
   3. HVAC, Plumbing, Sprinkler and Electrical Plans.
   4. Specifications and bidding documents.
   5. Final cost estimate.

4. Town approval to proceed with Construction
   a. Town Meeting – Vote to approve funds for construction.
   b. Project Bid Phase and Award of Contract
      1. Advertise in Central Register, Plan Rooms and local newspapers. FRCOG procurement or OPM? Allow 4–5 weeks
      2. Receive and review Sub–bids.
      3. Receive and review General Bids
      4. OPM and Building committee review bids, check references and recommend lowest responsible bidder to BOS.
      5. Award of Contract
      6. Kickoff meeting
      7. Contractor Mobilization.
         a. Secure bonds and insurance
         b. Secure building permit
         c. Initiate required shop drawings and submittals

c. Construction Phase (6–12 months)

d. BFD Move–in

   1. BFD modifications to existing station.
August 1, 2020

To: Bernardston Selectboard

Re: Preliminary Construction Cost Estimate for Fire Station Addition.

This estimate of probable construction costs is intended for budgeting purposes. The Final estimate of probable construction costs will be made upon completion of detailed construction documents including design drawings, specifications and bidding documents.

Estimated Construction Costs

1. General Conditions 75,000
2. Sitework 175,000
3. Concrete 202,000
4. Steel Building system 354,000
5. Doors and Windows 37,000
6. Interior finishes 67,000
7. Fire Protection 50,000
8. Plumbing 90,000
9. HVAC 120,000
10. Electrical 135,000

Subtotal Construction $1,305,000
   OH&P 250,000
   Bond 35,000
   Contingency (10%) 160,000

Total Construction $1,750,000

Other Project Costs

Design and Engineering $135,000
Owners Project Manager $65,000
Geotechnical Eng./Borings $10,000
Concrete, Bitumen. & Soils testing $15,000
Legal advertising/Bid $1,000

Work by BFD or Town:
Interior modifications to existing fire station.
Any new fire department equipment or supplies

Respectfully submitted,

Brian De Vriese AIA