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Essex Public Safety Building Project

Meeting Minutes

Re: Town Building Committee	Date: March 27, 2019
Location: Town Hall, 3 rd Floor Auditorium	Time: 7:00 PM

Attendees:

Name	Present	Name	Present
Town Building Committee		Town Staff	
Lisa O'Donnell, Committee Chair	✓	Brendhan Zubricki, Town Administrator	✓
Daniel Doucette, Fire Chief	✓		
Peter Silva, Chief of Police		Board of Selectmen	
Westley Burnham, Planning Board	\checkmark	Peter Phippen	✓
Nat Crosby, Historical Commission	\checkmark	Andrew Spinney	✓
Colleen Enos, Member	\checkmark		
Paul Francis, Member	\checkmark	<u>NV5 (OPM)</u>	
Peter Levasseur, Member		Tim Dorman	✓
Mark McKenna, Member		Mike Ulichney	✓
Stuart Pratt, Member	\checkmark	JRA (Architect)	
Charles Storey, Member	\checkmark	Stewart Roberts	\checkmark
Ramie Reader, Member	\checkmark	Philip O'Brien	

- 1. Approve minutes from March 13, 2019 meeting: A motion was made by Mr. Burnham to approve the minutes of the 3/13/2019 Town Building Committee Meeting. The motion was seconded by Mr. Doucette and passed unanimously.
- 2. Summarize feedback from Town Counsel and Building Inspector relative to whether a variance for front property line setback will be necessary concerning the public safety facility construction project along John Wise Avenue:
 - a. A memo from Town Counsel addressing compliance with zoning regulations will be distributed when it is complete.
 - b. Initial indication is that a variance from the front yard setback requirement will not be needed.
- 3. Review status of the design process for the combined police and fire facility on the combined site along John Wise Avenue, inclusive of feedback received from the police and fire departments since the last meeting and inclusive of any feedback from abutters ad neighbors of the JWA site. Also discuss input from other sub-consultants regarding the preliminary design (e.g., civil, structural, environmental and mechanical/electrical/plumbing).

- a. The Schematic Design level narratives for each of the disciplines were distributed and reviewed.
- b. Existing conditions survey: The updated survey was completed and the topography and wetlands limits are generally consistent with the record information that has been used for concept planning.
- c. Civil Site Plan: The civil plan update was reviewed to show the grading and drainage approach. The most significant change from the last iteration is the modification of the turning apron to better accommodate entering and exiting the apparatus bays.
- d. Review of floor plans:
 - i. The building got shorter and deeper to better fit on the site and accommodate the turning apron at the apparatus bays.
 - ii. The total floor area is currently measured at 26,050 square feet.
 - iii. Based on the working group meeting there was some minor reconfiguration of spaces in the police facility to locate administration with a window at the secure entrance and adjacent to the Chief's office and shift the Harbormaster office outside of the secure zone.
 - iv. A comment was made regarding flipping the kitchen and the day room to locate the kitchen closer to the training room.
 - v. Additional Storage options were reviewed, including the area under the training room and the remaining area under the apparatus bays. Both options will be priced in the Schematic Design cost estimate for further consideration.
 - vi. It was noted that the police department currently rents an off-site storage unit that is approximately 12' x 30' and is full.
 - vii. The current design does not provide for a location for the antique hand pump.
- e. Exterior Elevations
 - i. Building elevations and section views were reviewed. It was noted that the current height of the apparatus bay roof of 37' may be able to be brought down by a couple feet.
 - ii. Walls inside the apparatus bays will be concrete block for durability.
 - iii. Exterior materials will fit with the aesthetics of the town and are anticipated to include shingles, clapboard and board and batten.
 - iv. Roofs are anticipated to be asphalt shingle. A comment was made to look at alternative options for a portion of the roof, such as standing seam metal roof for variation.
 - v. Roofs are all pitched to shed water, but with flatter areas to reduce the overall height.

- f. A comment was made regarding also including kevlar panels on interior walls between the public and secure zones for both the police and fire facilities as well as bullet proof glass for reception windows.
- g. A concern was raised over deteriorating exterior materials. JRA noted that composite materials such has hardie board and azek are being considered.
- h. A comment was made regarding adding windows or shingle detail at gable ends over the apparatus bays to break up the façade as well as incorporation of dormers to break up the apparatus bay roof.
- i. It was noted that the primary concerns that have been expressed by the neighbors include roofs, landscape buffers and traffic speed.
- j. A comment was made regarding the direct exterior entrance to the apparatus bays. Rather than entering through the dispatch room, it would be preferable if a vestibule could be created or the door could be shifted to the other side.
- 4. Update concerning the potential costs for a) dismantling, and b) re-assembling the timber frame structure at 11 John Wise Avenue for use in the new public safety building (if cost are available by meeting time). No cost information was available for discussion at the meeting.
- 5. Discuss progress toward application for a demolition permit to dismantle existing house on 11 John Wise Avenue.
 - a. The demolition permit application has been submitted, which begins the review process.
 - b. Mr. Crosby raised concern over the application as it has recently been determined that Eleanor Raymond, an important architect may have been associates with the design of the conversion from a barn to a residential use, which may warrant preservation of other elements beyond the timber frame.
 - c. The research has been started, including requesting documents from the Harvard archives, but the Historical Commission will need to move in the delay process pending confirmation.
 - d. Following extensive discussion, the members of the Building Committee felt that it is important to continue with the application due to the risk of any delay to starting construction in the fall.
- 6. Discuss material and format for public forum to be held on Wednesday, April 10th:
 - a. Lisa O'Donnell will provide context and background, NV5 will provide an update on schedule and JRA will provide a presentation on the design.
 - b. The cost estimate will not yet be available.
 - c. Questions will be taken first and then comments.
- 7. Public Comment: None
- 8. A motion was made to adjourn the meeting at 8:53 PM. The motion was seconded and approved unanimously.



Attachments:

- JRA Presentation
- Agenda
- Sign in list

-End of Minutes-

Tim Dorman, NV5

Lisa O'Donnell, Committee Chair



ARCHITECTS

Essex Public Safety Building Essex, Massachusetts

Design Presentation March 27, 2019





Consultant Narratives

- Structural Narrative
- **HVAC** Narrative
- Electrical Narrative
- **Technology Narrative**
- Plumbing Narrative
- **Fire Protections Narrative**

ROOME & GUARRACINO, LLC Consulting Structural Engineers 48 Grove Street Somerville, MA 02144 Tel: 617.628.1700 Fax: 617.628.1711

Essex Public Safety Building-Essex, MA

This project consists of the design and construction of a new two-story public safety building (fire and police) for the town of Essex. This is a Category IV- "Essential Facility". The new buildin and police) for the town of Essex. This is a Category IV - "Essential Facility". The new building will be built into the side of a hill, so that the upper level will be at grade on three sides. There will be approximately 9,500 sq. ft. of usable space (plus an additional 6,000 sq. ft. of potential storage space) on the lower level for the police department, and approximately 15,500 sq. ft. of space on the upper level for the fire department. The lower floor (police department) will have a sallyport and garage, cell/booking area, offices, locker room, fitness area, storage areas, and meeting room. The per level (fire department) will have a lobby, offices, locker rooms, dorm rooms, meeting/train part for the department of the action of the second s concrete slab a beams at the apparatus bay area, and cast-in-place concrete slabs on metal deck with steel beams an girders for the rest of the floor. The roof will be a series of gable with flat areas, framed with stee of deck supported by steel beams and girders. Lateral loads from the upper level to the roof will be resisted by a combination of structural steel braced and moment frames in each direction

Lower Level/Foundation Syster

Building columns will be supported on individual spread footings (with the allowable bearing capacity determined upon geotechnical engineering analysis.) The columns under the apparatus bay area will be 16" sq. CIP reinforced concrete columns on a 20" grid, while the remainder of the columns under the upper level will be structural steel square HSS sections. Accordingly, the lower level floor slab will be a 5" thick cast-in-place concrete slab-on-grade, reinforced with Kr6-WAO MUST DURING THE CONCENTRATION OF THE CO W2.9xW2.9 WWF. There will be 12" thick reinforced concrete foundation walls supported on continuous spread footings.

Upper Level Floor

The slab and beams at the apparatus bay area will be cast-in-place reinforced concrete (f'c=5,000 psi) supported on CIP columns, with a waterproofing membrane and a topping slab that is pitched to drains. The base slab will be an 8" thick on-way slab with #5@9" T+B, and #4@ 12" T+B temp. drains. The base share will be an 8 tinck on-way share with r_{300} (1-B), and r_{40} [12 (1-B) ethic), reinforcing. The beams at 10° oc will be 18° x 24° deep and reinforced with 5% 9 T+B with #4 stirrup ties. The column line girders will be 24°x 24° and reinforced with 5% 9 T+B with #4 stirrup ties. The remainder of the floor slabs will be Composite slab on metal deck slabs. The slabs will be 3° thick above 2° deep 20 ga. composite steel deck (total = 5.0 inches deep) welded wire fabric reinforced (6x6-W2.9xW2.9 WWF), and f'e=3,000 psi. The supporting beams and girders will be structural steel rolled shapes made composite with the slabs via 3/4in. dia. by 3.5 in. long welded shear studs. Columns will be ASTM A992 (fy=50ksi) steel, or tube steel sections.

Roof Framing

Framing will be 3" - 20 ga. galvanized steel roof deck supported on structural steel beams and girders with structural steel columns down to the upper level floor

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Essex, MA J#330 000 00.00 L#65920/Page 1/March 26, 2019

HVAC SYSTEMS

NARRATIVE REPORT

The following is the HVAC Systems narrative, which defines the proposed scope of work and capacities of the HVAC Systems, as well as, the Basis of Design.

1. CODES

Essex Public Safety Building

- All work installed under Section 230000 shall comply with the Massachusetts State Building Code and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction 2. DESIGN INTENT
- All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities
- and all operations and adjustments required for the complete and operating installation of the Mechanical work and all items incidental thereto, including commissioning and testing. During the project schematic-design development phase, a lifecycle cost analysis (LCCA) of a minimum of three (3) HVAC systems shall be studied in terms of first installed cost, maintenance cost, and operating energy costs over a 30 year study period. Typically, the HVAC system with the lowest Lifecyle cost will be the proposed recommended HVAC system. The following HVAC systems are proposed to be studied as part of the LCCA.
- 3. BASIS OF DESIGN:

Project weather and Code temperature values are listed herein based on weather data values as determined from ASHRAE weather data tables and the International Energy Conservation Code. Outside: Winter 7 deg. F, Summer 88 deg. F DB 74 deg. F WB

Inside: 70 deg. F +/- 2 deg F for heating, 75 deg. F +/- 2 deg F (50% RH +/- 5% RH) for cooling.

Ventilation air: In all cases where mechanical ventilation is provided, ASHRAE guide 62.1-2010 and the International Mechanical Code 2015 will be met as a minimum for outdoor airflow and ventilation. In cases where natural ventilation is provided, natural ventilation design shall meet the requirements of the International Mechanical Code.

- 4. PROPOSED HVAC SYSTEM OPTION 1 VAV SYSTEM
- A. Summary:

TEL 508-998-5700

 Under this option, it is proposed that the majority of building areas by served by a Variable Air Volume (VAV) System with terminal VAV hot water re-heat coils. Primary air will be generated by indoor central station hot water heating, chilled water cooling, and dual wheel energy recovery air-handling units that shall be ducted to VAV terminal boxes and ceiling grilles in each space through Central Distribution of Central Units and in the ministrue of the circulated and dutible due. Heating ution Duct Systems with a mixture of re-circulated and outside air. Heating hot water will be generated by two gas-fired high-efficiency condensing boi with hot water distributed by pad-mounted pumps equipped with VFD driv

email: info@q-q-d.con

email: info@g-g-d.com

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Essex Public Safety Building Essex, MA J#330 000 00.00 L#65922/Page 1/March 26, 2019

TECHNOLOGY SYSTEMS NARRATIVE REPORT

The following is the Technology Systems narrative which defines scope of work, as well as, basis of design for the Public Safety Building.

- The Technology system design at the Essex Public Safety Building is designed vertice and intended for 100/1000mbps to the work station. The voice wiring will VOIP and standard PBX systems as currently utilized.
- TECHNOLOGY COMPONENTS:
- Installation and integration of multiple technology components are as follow
- A. Cabling for Voice. Data, and Video Technologies.
- B. Data Electronics for LAN/WAN Data Infrastructure (not included as part of scope)
- C. Data Electronics for Internet Access (not included as part of scope)
- D. Data Network Computer Hardware (not included as part of scope)
- E. Data Network Software (not included as part of scope)
- F. Computer Peripherals (not included as part of scope)
- 3. DATA SYSTEM:
- The data system is designed for a Gigabit Ethernet (Category 6 cable) with 100/1000 Base-T users to accomplish
- A. Internet access through a wireless Ian and hard wired data drops.
- B. Applications for word processing, spreadsheet, and alike through a central applications

FAX 508-998-0883

- C. Printing of documents from any user computer connected to network printers D. Wireless access for employees at the facility.
- 4. TELEPHONE SYSTEM

TEL 508-998-5700

The telephone system will utilize Category 6 cable similar to the data system. The voice wiring will be patched so that it can accommodate the PBX / Centrex systems or Voice-Over-IP.

email: info@g-g-d.com

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FAX 508-998-0883

Essex Public Safety Building

Essex, MA J#330 000 00.00 L#65919/Page 1/March 26, 2019

PLUMBING SYSTEMS NARRATIVE REPORT

The following is the Plumbing system narrative, which defines the scope of work and capacities of the Plumbing system as well as the Basis of Design.

- 1. CODES
- A. All work installed under Section 220000 shall comply with the MA Building Code, MA Plumbing Code and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction
- 2. DESIGN INTENT
- A. All work is new and consists of furnishing all materials, equipment, labor, transportation An work is new and consists or fundaming an indentias, equipment, rador, partisponator, facilities, and all operations and adjustments required for the complete and operating installation of the Plumbing work and all items incidental thereto, including commissioning and testing.
- 3. GENERAL

TEL 508-998-5700

- A. The Plumbing Systems that will serve the project are cold water, hot water, tempered vater, sanitary waste and vent system, grease waste system, special waste system storm drain system, and natural gas.
- B. The Building will be serviced by Municipal water and Municipal sewer system
- C. All Plumbing in the building will conform to Accessibility Codes and to Water Conserving sections of the Plumbing Code
- 4. DRAINAGE SYSTEM
- Soil, Waste, and Vent piping system is provided to connect to all fixtures and equipme System runs from 10 feet outside building and terminates with stack vents through the
- B. A separate Garage Waste System starting with connection to an exterior concrete oil/water separator running through the Apparatus Bay. Vehicle Storage areas, and Sallyport areas and terminating with a vent terminal through the roof. The oil/water separator is provided under Division 22 scope.
- Storm Drainage system is provided to drain all roofs with roof drains piped through the

FAX 508-998-0883

Drainage system piping will be service weight cast iron piping; hub and spigot with gaskets for below grade; no hub with gaskets, bands and clamps for above grade 2 in. and larger. Waste and vert piping 1-12 in. and smaller will be type 1: cooper.



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Essex Public Safety Building Essex, MA

J#330 000 00.00 L#65918/Page 1/March 26, 2019

FIRE PROTECTION SYSTEMS NARRATIVE REPORT

The following is the Fire Protection system narrative, which defines the scope of work and car the Fire Protection system, as well as, the Basis of Design

- 1. CODES
- A. All work installed under Section 210000 shall comply with the MA Building Cod state, county, and federal codes, laws, statutes, and authorities having jurisdictio
- 2. DESIGN INTENT
- A. All work is new and consists of furnishing all materials, equipment, labor, trans facilities, and all operations and adjustments required for the complete and installation of the Fire Protection work and all items incidental thereto,
- commissioning and testing. 3. GENERAL
- A. In accordance with the provisions of the Massachusetts Building Code, the build be protected with an automatic sprinkler system
- 4. DESCRIPTION
- The building will be served by a new 6-inch fire service, double check value wet alarm value complete with electric bell, and fire department connection me
- B. System will be an automatic sprinkler system with control valve assemblies to
- C. Control valve assemblies shall consist of a supervised shutoff valve, check val switch and test connection with drain
- D. All areas of the building, including all finished and unfinished spaces, coml concealed spaces, all electrical rooms and closets will be sprinklered.
- E. All sprinkler heads will be quick response, pendent in hung ceiling areas and u unfinished areas
- BASIS OF DESIGN

TEL 508-998-5700

A. The mechanical rooms, Sallyport, kitchen, and storage rooms are considered Hazard Group 1. Apparatus Bay is considered Ordinary Hazard Group 2. All othe are considered light hazard.

FAX 508-998-0883

email: info@g-g-d.com	
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email: info@g-g-d.com	

ARCHITECTS Survey



\\\$ [)	WSP USA Inc. 9 Executive Park Dr. ; Merrimack, NH 03054 603.595.7900
Drawn By ES	Date
Surveyed By WP GA RZ	MARCH 25, 2019
Checked By MS DJH	Scale





ARCHITECTS Model View



JOHNSON ROBERTS ASSOCIATES INC. **Essex Public Safety Building Project** ARCHITECTS Civil - Grading plan



ARCHITECTS Civil - Drainage Plan



ARCHITECTS Site Plan



Upper Level Plan

JOHNSON ROBERTS ASSOCIATES INC.

ARCHITECTS



Total

























East Elevation











SECTION Scale: 3/16" = 1'-0"



Total







Upper Level Plan

ARCHITECTS



Total

1 <u>SECTION</u> Scale: 3/16" = 1'-0"

ARCHIECTS Ruilding Sections - Training and Public Areas

Wall Sections

ARCHITECTS Model View

ARCHITECTS Model View

Model View

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Essex Public Safety Building Project - Essex, MA

Projected Meeting and Milestone Schedule: Schematic Design

Date & Time			Item	
		TBD		Board of Public Works Vote to Transfer Cemetery Land to Bo
	Mon	02/25/19	6:00PM	Board of Selectmen Meeting -Approve Additional Services for JRA SD -Approve Additional Services for survey, wetlands, traffic
	Wed	02/27/19	7:00PM	Town Building Committee Meeting -Review Combined Facility Option at Cemetery/11 JWA Site -Decision on Combined or Separate Facilities -Discuss options for existing building on 11 JWA -Review SD Phase Schedule
	Tues	03/05/19	8:00PM	Preliminary Meeting with Conservation Commission
	Wed	03/13/19	7:00PM	Town Building Committee Meeting -Summarize Feedback from ConCom/PB -Design Progress Review
	Wed	03/27/19	7:00PM	Town Building Committee Meeting -Design Progress Review
	Fri	03/29/19	5:00PM	SD Package to Cost Estimators
	Wed	04/10/19	7:00PM	Public Forum
	Fri	04/12/19	2:00PM	SD Cost Estimates Complete
	Wed	04/17/19	TBD	Cost Estimate Reconciliation Meeting
	Wed	04/24/19	7:00PM	Town Building Committee Meeting -Approval of Proposed Budget -Approval to Proceed to DD
	Wed	05/01/19	7:00PM	Public Forum
	Mon	05/06/19	7:30PM	Annual Town Meeting

Location		
S		
	Town Hall - Auditorium (3rd Floor)	
	Town Hall, 2nd Floor	
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	Town Hall - Auditorium (3rd Floor)	
	Essex Elementary School	

Town Building Committee / Board of Selectmen

March 27, 2019 – 7:00 p.m. – Town Hall Auditorium – 30 Martin Street

Agenda

Public Comment.

Approve minutes from March 13, 2019 meeting.

Summarize feedback from Town Counsel and Building Inspector relative to whether a variance for front property line setback will be necessary concerning the public safety facility construction project along John Wise Avenue.

Review status of the design process for the combined police and fire facility on the combined site along John Wise Avenue, inclusive of feedback received from the police and fire departments since the last meeting and inclusive of any feedback from abutters and neighbors of the JWA site. Also discuss input from other sub-consultants regarding the preliminary design (e.g., civil, structural, environmental and mechanical/electrical/plumbing).

Update concerning the potential costs for a) dismantling, and b) re-assembling the timber frame structure at 11 John Wise Avenue for use in the new public safety building (if costs are available by meeting time).

Discuss progress toward application for a demolition permit to dismantle existing house on 11 John Wise Avenue.

Discuss material and format for public forum to be held on Wednesday, April 10th.

Items not anticipated by the Chairman prior to the meeting posting deadline.

Public Comment.

Review upcoming schedule.

Adjourn.

Essex Public Safety Building Project Town Building Committee Sign-In List Location: Town Hall, 3 Fluer 3 27 2019 Date: Email Name 1 105. Com tim 1an Q 2 Mic Com 110 NVK 3 MAG 4 a 15M 2 OULCHST 5 esseama, 6 Polleen agmail com 7 READER RAM 582 @ COMMAST. ~07 8 Spinney RU 9 O(3t)Lodonnellesserma.org. 10 O'DONNELL SA 11 bzubrick Zubricki Kren ma.o 12 eu Q harp 13 ANAL-MAN-CANY 14 15 16 17 18 19 20