



# Public Facilities Committee Report

## City of Newton In City Council

Wednesday, March 23, 2016

Present: Councilors Crossley (Chair), Lennon, Albright, Gentile, Danberg, Laredo, and Lappin

Also present: Councilor Fuller

City staff present: Shane Mark (Director of Operations; Public Works Department), Ted Jerdee (Director of Utilities), Bruce Proia (Fire Chief), and Josh Morse (Commissioner of Public Buildings)

### Referred to Public Facilities and Finance Committees

#### **#117-16      \$2,700,000 for water main improvements**

HIS HONOR THE MAYOR requesting authorization to appropriate two million four hundred thousand dollars (\$2,700,000) from bonded indebtedness for the purpose of funding water main improvements as part of the 10 year - \$40 million Capital Improvement Plan. [03/15/16 @ 4:51 PM]

**Action:**      Public Facilities Approved 6-0 (Albright not voting)

**Note:**

Director of Operations Shane Mark confirmed that the water infrastructure improvement plan would be a 20 year, \$80 million plan. CDM Smith evaluated the System Distribution Management program and came up with a 20-year program for the evaluation of all water mains & systems. The program was in order to assist with the cleaning and lining and replacement of water mains for increased water quality and fire flow. Total expenditure for the fiscal year is \$4 million, as planned.

There is a new state program that could provide funding specifically for the purpose of replacing lead pipe connections. Mr. Mark indicated that the City Engineer is aware of the program and interested in pursuing this as a funding option. There are no water mains made of lead, only joints and service connections, which are being replaced as they are found.

There was a question regarding the status of the transition from a focus on improving fire flow to water quality. It was explained that while the major work correcting for substandard fire flow is nearly completed, there may arise the need for additional attention to improving fire flow in other areas. Chair's Note: Subsequent to the meeting City Engineer Lou Taverna submitted the attached e-mail detailing the water main rehabilitation plan for Fiscal Year 2017.

### Referred to Public Facilities and Finance Committees

#### **#89-16      Request for \$3,400,000 for the Fire Station 3/Headquarters Project**

HIS HONOR THE MAYOR requesting authorization to appropriate three million four hundred thousand dollars (\$3,400,000) from bonded indebtedness for the purpose of funding the completion of the next phase of construction of the Fire Station 3/Headquarters Project. [02/29/16 @ 4:03PM]

**Action:**            **Public Facilities Approved Subject to Second Call 3-0-4 (Albright, Danberg, Laredo, Lappin Abstaining)**

**Note:**            This item was taken up at the March 9 meeting, approved 6-0, but prior to obtaining revised estimates that show large cost increases. Therefore it was sent back to Public Facilities to be sure Committee members understand and agree with the revisions.

This request is to appropriate \$3,400,000 to fund both the completion of construction documents for the Fire Station 3/Headquarters Project, and so that several early bid packages: demolition, site work, foundations and steel, can be released. The recently revised project estimate shows a 2.8 million cost increase since last May. Commissioner Morse used his prepared narrative (attached) to explain the increased costs in three categories: (1) Protection of emergency communications, (2) Addition to the scope, and (3) Higher than anticipated costs. He also stated that as the design team works on the project, they continually collaborate to control the costs at every step. Cost reductions (totaling 1.1 million) over the same time period are reflected in a list (Commodore Builders, attached) which is to be subtracted from the 2.8 million. While the DRC has reviewed major changes to the design of the building, increases to the program have been made on an internal level.

Commissioner Morse indicated that the mechanical engineering consultants initially included unnecessary intricacies. Conversations with and specific direction to the consultants have resulted in simplifying systems design. The DRC has reviewed and noted that several of the initial plans were over designed. They are in support of the simplifications. Commissioner Morse stated that while the mechanical plans need attention, the architectural plans are sound. The requested funds would allow the City to release the early bid packages and obtain concrete numbers as opposed to estimates. The DRC has reviewed and approved the design to the degree that allows for the release of these packages, assuming there is not a will to change the design. The difference between high and low bidders could be substantial and without actual numbers, a lot of assumptions are made.

Commissioner Morse reviewed a comparison of anticipated and actual Construction Manager (CM) costs (attached) at 60% completion. There has been an overall 17% increase in CM costs, mostly due to increases in time and complexity. The Commissioner believes that obtaining bids on the early release packages should help to control costs.

One cost saving measure was of changing the driveway from concrete to bituminous pavement. Mr. Morse explained that within a 15 year time frame it was unlikely that there would be a noticeable difference in wear, due to the concrete substructure. However in about 40-50 years, due to the weight and nature of the trucks, the drive may need to be resurfaced. A question was raised about the removal of the canopy within the Fire Station. Commissioner Morse explained that while the architects felt that the canopy had some aesthetic value, the DRC disagreed, it was a costly item, and so it was removed.

Commissioner Morse discussed the need and importance of the heated driveway because of the grade of the slope and safety hazards when incorporating factors including moisture, snow & ice. While operating costs are difficult to predict because they are based on environmental conditions,

there are operating costs associated with not having the heated driveway. Commissioner Morse also mentioned that this feature requires concrete underneath, contributing to the durability of the driveway. Chief Proia feels that the heated driveway is essential for the trucks exiting safely onto Centre Street. There was general support for the heated driveway and its importance in assuring emergency response during extreme weather conditions. It was noted that the emergency generator does not cover the heated driveway, however a secondary portable generator could be added to the bid as an alternate.

The chair raised a question about the storm water management system design standards and how they are being met. There was some concern about the capacity of the system overall, and in particular, that the long sloping drive flow into a retention basin sized to meet severe conditions so as not to flood the bays. Commissioner Morse indicated that the trench drain at the base of the drive is designed to meet a one hundred year storm. Commissioner Morse will discuss with the DRC that the drain will be built to greater than required standards, considering it is a public safety building.

A question was raised about the difference in performance as a result of changing the epoxy flooring to sealed concrete and cost reduction shown in moisture mitigation. Commissioner Morse stated that past experience demonstrated that the moisture mitigation costs are substantially less than planned for and the epoxy flooring can always easily be added at a later date.

Committee members had questions regarding cost reduction items since the last Finance meeting. Commissioner Morse indicated that the attached list is the result of an ongoing and continuing effort to reduce costs to the project since last May. Chief Proia has been working with the vendors who provide radio communications and fire alarm circuits to consider further cuts, for example. In response to a question about the change in the urgency of the Council approving these funds, Commissioner Morse stated that Commodore Builders is confident in their ability to make up two weeks of time lost. He did note however, the importance of completing the building envelope prior to next winter.

Although Chief Proia stated that decisions to eliminate various features were thought out and weighed, it was discussed that his number one concern should be obtaining what is necessary to the full functionality of the Fire Station. Committee members expressed a general sentiment that critical upgrades should be made during this project, as opposed to postponed to a future date.

There was some discussion about whether the acquisition of the Dellaria property should be revisited, since some design issues with the current project were a direct result of the constrained site. However it was noted that several site issues and cost drivers would remain, others would present, and the sale price asked for the Dellaria acquisition was prohibitive.

The Committee had concerns about the changing budget and the discrepancy from the initial budget. How the budget changed drastically after the last finance meeting was noted. An additional concern is how this funding will affect other projects in the future. Although Maureen Lemieux, Chief of Staff/Chief Financial Officer for the City was unable to attend the meeting, she did send a memo identifying two potential funding sources for the project (attached). Improved and more regular

communication efforts were requested by the Committee in order to be well informed. If the DRC has updates/concerns, the Committee requests that information as soon as possible.

**Referred to Public Facilities and Finance Committees**

**#116-16**

**Additional funding for Aquinas Window Project**

HIS HONOR THE MAYOR requesting authorization to appropriate three hundred eighteen thousand two hundred sixty dollars ~~(\$318,260)~~ (\$397, 800) from a transfer from the Capital Stabilization fund to provide additional funding for the Aquinas Window Project. [03/15/16 @ 4:52 PM]

**Action:** **Public Facilities Approved as Amended Subject to Second Call 5-0 (Albright, Lappin not voting)**

**Note:** This is a request for additional funds so the City can procure a replacement bidder for the Aquinas Window Project. The low bidder for the project was not the appropriate contractor and withdrew their bid. Subsequent to the meeting, Commissioner Morse provided a cost breakdown of the amended amount of \$397,800 (attached).

Commissioner of Public Buildings, Josh Morse was informed that as the amended request for funds was from him; he will need to submit a letter reflecting the correct amount of \$397,800 from the Mayor's office. A question was raised regarding the why the City would be liable for the property taxes on the property and why the issue was not raised at point of sale. The Finance Committee requested further information on this issue and the budget estimate that explains the change in scope.

Respectfully submitted,  
Deborah J. Crossley, Chair

**Shawna Sullivan**

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**From:** Louis M. Taverna  
**Sent:** Thursday, March 24, 2016 2:31 PM  
**To:** Shane Mark; James Mcgonagle; ruthannefuller@gmail.com; DEBORAH CROSSLEY  
**Cc:** Theodore Jerdee; Shawna Sullivan  
**Subject:** Water mains rehabilitation for FY 2017

All,

The current water main contractor, Biszko Contracting, who started work in 2015 and will finish this construction season, is working on water main rehabilitations related to fire flow deficiencies. This includes Crafts St, Walnut St and Waltham St, Cherry St, and Chestnut St. This completes the 3 year program to correct known fire flow deficiencies, as recommended by CDM Smith. However, as the city further develops, there may be additional areas where fire flows are deficient, based upon the new developments, and additional water main rehabilitations may be required.

The upcoming water main rehabilitations, for FY 2017, focuses on water quality issues, as well as the potential for water main leaks, based on the age, installation date, and type of water pipe, as recommended by Tata & Howard. Rehabilitating these water mains mitigates their leak potential. The program also includes the installation of two new 20-inch diameter water gates associated with the upcoming proposed shut down of the water reservoir for leakage testing.

Lou

Louis M. Taverna, P.E.  
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The goal of this document is not to account for all of the varying costs, but rather a big picture look at how we went from \$18.5M to \$20.5M since last May. All of the below costs resulted in an added cost since May of \$2,898,000. There were other small additions in the cost. Through a thoughtful and very lengthy value engineering process we did everything we could to offset these added costs. We have categorized the increases in three main categories as follows:

- **Protection of Emergency Communications - \$828,000**
- **Scope Adds - \$1,285,000**
- **Higher than Anticipated Costs - \$785,000**

### **Protection of Emergency Communications - \$828,000**

<b>Communication tower and associated equipment:</b>	<b>\$601,000</b>
<b>Protection of existing emergency communications:</b>	<b>\$227,000</b>

#### **Communication tower and associated equipment: \$601K**

The tower and supporting equipment was originally assumed to be able to be reused. This assumption was incorrect, as the equipment and tower are well beyond their useful life, and have since been evaluated to be in a condition not worthy of continued use.

#### **Protection of existing emergency communications: \$227K**

\$227K added in general requirements to allow for a phased add/reno, which allows for the critical emergency communications equipment to be protected/sustained throughout the project. It was assumed last May that savings could be achieved, by the setup of an onsite temporary emergency communications trailer. This actually proved to be more expensive, and yielded a higher potential for loss of emergency communications.

### **Scope Adds - \$1,285,000**

<b>Temporary operations site scope add:</b>	<b>\$273,000</b>
<b>Alerting/Security System scope add:</b>	<b>\$220,000</b>
<b>Emergency Operations Center and Dispatch expanded scope:</b>	<b>\$150,000</b>
<b>Traffic scope add:</b>	<b>\$ 80,000</b>
<b>Elevator scope add:</b>	<b>\$ 45,000</b>
<b>Emergency generator scope add:</b>	<b>\$275,000</b>
<b>Plymovent scope add:</b>	<b>\$ 70,000</b>
<b>Foundation of old Fire Station found:</b>	<b>\$100,000</b>
<b>UST removal costs not assumed to be part of this project:</b>	<b>\$ 72,000</b>

#### **Temporary operations site scope add: \$273K**

Additional costs are associated with the temporary Fire Station now being located on site, as opposed to on the street as assumed last May. The added construction costs are from moving money for this work from soft costs, to the construction line item.

#### **Alerting/Security system scope add: \$220K**

These systems were expanded significantly to meet the needs of the NFD. Over the past year, the needs of the NFD have evolved to include intrusion alarm, security cameras, and access control. We

realized that the addition/expansion of the critical communication, IT, and emergency support functions resulted in the need for an expanded security scope.

**Emergency Operations Center and Dispatch expanded scope: \$150K**

The cost of providing a 21st century EOC has been proven to be more expensive than previously thought. The backup dispatch scope was expanded to allow for 4 dispatch workstations. This was done based on the evaluation of the current Police HQ, and its lack of projected resiliency in emergency situations.

**Traffic scope add: \$80K**

Traffic work outside of the project boundaries was not carried in the estimate last May. However, over the past year, it has become increasingly obvious that this work is needed to provide for timely emergency response.

**Elevator scope add: \$45K**

Last May, it was assumed that a two stop elevator would suffice. Since that time, it has been determined that an additional stop will be required based on the latest building design.

**Emergency generator scope add: \$275K**

Last May it was assumed that we could cover critical electrical loads with a much smaller emergency generator, and associated distribution equipment. With a renewed look at how critical this facility is to public safety throughout Newton, it was determined that a vast majority of electrical loads needed to be covered by emergency power.

**Plymovent scope add: \$70K**

With the addition of NFD apparatus, an expanded scope of vehicle carbon monoxide removal systems became necessary.

**Foundation of old Fire Station found: \$100K**

Based on existing plans, this did not exist. Exploratory work since last May resulted in the finding.

**UST removal costs not assumed to be part of this project: \$72K**

Early on it was assumed that the underground fuel storage tanks would be removed by the City using alternate funding sources.

**Higher than Anticipated Costs - \$785,000**

<b>Construction Manager costs:</b>	<b>\$175,000</b>
<b>Additional escalation:</b>	<b>\$245,000</b>
<b>Demo/Abatement bids:</b>	<b>\$165,000</b>
<b>Site work costs:</b>	<b>\$200,000</b>

**Construction Manager costs came in higher than expected: \$175K**

All firms submitted higher than anticipated CM costs. This was likely due to project complexity and bid climate.

**Additional escalation: \$245K**

MWRA easement negotiations resulted in a 7 month delay in bidding the project.

**Demo/Abatement bids came in higher than expected: \$165K**

This was a result of the delays mentioned above, and a bullish construction market.

**Site work costs higher than SD estimate: \$200K**

Storm water retention requirements expanded to meet increased impervious surfaces. Porous asphalt was required to meet storm water needs. There was a significant expansion of electrical duct bank to meet changes in emergency and normal power load requirements, as well as emergency generator location.

As a reminder, there were three factors that previously raised our cost estimate from \$15.5M to \$18.5M.

- Keep the existing Fire Headquarters and renovate it.
- Construction of a very long retaining wall that allowed the preferred site plan to work.
- Expansion of the Emergency Operations Center from a small existing conference room to a 40 seat center.



**COMMODORE BUILDERS**

PROJECT PLANNERS &amp; CONSTRUCTION MANAGERS

80 BRIDGE STREET

NEWTON, MA 02458

Date:

3/14/2016

PROJECT: NEWTON FIRE STATION 3 - 60% CD Budget

LOCATION: CENTRE STREET

NEWTON, MA

ARCHITECT: SCHWARTZ/SILVER

Item #	TRADE ITEM		COMMENTS
A0	Reduce Duration & GC's	(\$138,448)	Reduced from 20 months to 18 months
A1	Reduce Fire Watch by 15 days	(\$5,400)	
A2	Reduce Police Details to 20 days - Need Info From City on Requirements	(\$62,000)	
A4	Reduce AVB Unit Cost to \$6.75	(\$45,679)	Square footage of wall changed
A6	Substitute Alternate Panel Material ilo Lumasite - Target \$20/sf savings	(\$87,825)	Unit cost of Lumasite higher than anticipated replace with ACM panels face fastened
A8	Delete Moisture Mitigation at New Building and Provide as Add Alternate	(\$29,925)	
A10	Delete Access Floor System at EOC - Add Walker Duct - <b>Need Direction</b>	(\$25,375)	Canopy SF reduced
A11	Delete Acoustical Wall Panels	(\$10,000)	
A12	Delete 2 Slide Poles	(\$9,000)	Only 1 deleted
A14	Reduce Blinds & Shades Unit Cost to \$7/sf in New Building - Mini Blinds	(\$22,950)	
A16	Delete Moisture Mitigation at Renovated HQ	(\$18,900)	
A18	Reduce Blinds & Shades Unit Cost to \$7/sf in Renovated HQ - Mini Blinds	(\$16,650)	
A19	Delete Epoxy Flooring at Apparatus Bay	(\$46,043)	Epoxy flooring deleted, included sealed concrete
A20	Substitute VCT for Vinyl Sheet Flooring/Linoleum	(\$20,381)	increase in sf
A22	Delete Electric Hand Dryers	(\$4,731)	
A23	Delete Bath Lockers	(\$7,080)	No changes shown on drawings
A24	Delete Projection Screen	(\$3,500)	
C1	Substitute Bituminous Paving ilo Colored Concrete Drive - Delete Colored Stripes	(\$213,245)	
C3	Substitute CIP Sidewalk ilo Permeable Pavers	(\$50,000)	
C5	Delete Sidewalks at Willow Street	(\$11,712)	No changes shown on drawings
	Eliminate Domestic Water Pump	(\$2,830)	
A45	Signage reduction by \$20K	(\$30,000)	
E6	Reduce Generator to one, only required and emergency systems	(\$76,000)	
C9	Site utility and drainage design per CB comments	(\$20,000)	
A50	Remove Canopy	(\$170,000)	
A52	Patch Plaster - Line Item	(\$15,000)	
C15	Remove coldplane of Willow St	(\$29,000)	
		(\$1,171,674)	

**VE REALIZED**

100% DD (\$789,676)

60% CD (\$381,998)

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 (\$1,171,674)

Comparison of Construction Manager Costs: SD Estimate 3/26/15 (PM&C) and 60% CD estimate 3/9/16 (Commodore Builders).

	SD Budget	60% CD Costs	Change	Notes
<b>Pre-Construction Costs</b>				
CM Pre-Construction Fee	75,000	98,000	\$ 23,000	SD assumed \$15k/mo for 5 months of pre-construction services. Actual is 7 months at \$14k/mo.
<b>Construction Phase Costs</b>				
GENERAL CONDITIONS	\$ 1,297,449	\$ 1,877,000	\$ 579,551	
GENERAL REQUIREMENTS	\$ 189,824	\$ 320,385	\$ 130,561	60% CD cost Includes temporary operation costs as defined below. Temporary operation costs were in the budget as soft costs during SD, but were added to CM scope during DD.
GENERAL REQUIREMENTS		\$ (227,000)	\$ (227,000)	CM General Requirements costs associated with Temporary Operations.
P&P BOND and Insurances	\$ 237,280	\$ 112,019	\$ (125,261)	
FEE	\$ 427,105	\$ 391,755	\$ (35,350)	
PERMITS	\$ -	\$ -		Fees assumed waived by the City.
GMP CONTINGENCY*	\$ 351,212	\$ 437,826	\$ 86,614	*PM&C estimate dated 3/26/15 did not specifically carry a GMP contingency and had a total estimated cost of construction of \$13,248,288. However, the project accounted for a GMP contingency in the overall \$13,600,000 construction cost budget line carried as part of the SD total project budget dated 5/13/15. A GMP contingency line item was formally added to PM&C's estimates at 50% DD.
<b>Total CM Costs</b>	<b>\$ 2,502,870</b>	<b>\$ 2,911,985</b>	<b>\$ 432,115</b>	

17%

**Shawna Sullivan**

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**From:** Deb Crossley <djcrossley26@verizon.net>  
**Sent:** Wednesday, March 23, 2016 11:07 AM  
**To:** Maureen Lemieux; Shawna Sullivan  
**Cc:** Scott F. Lennon; Lenny Gentile; Joshua R. Morse; Bruce A. Proia  
**Subject:** Re: Station 3 @ PF Tonight

Shawna,  
Please send this memo from Maureen to the committee for their consideration ahead of tonight's meeting.  
Thank you

Sent from my iPhone

On Mar 23, 2016, at 10:57 AM, Maureen Lemieux <[mlemieux@newtonma.gov](mailto:mlemieux@newtonma.gov)> wrote:

Deb,

Unfortunately, I am not going to make it to PF tonight. I have stayed home today. I am exhausted and have an incredible amount of work that I have to get done.

The only real question that anyone should have for me tonight is "how will we pay for any additional expenditure on Station 3?"

As I told the members of Finance last week I have 2 things that have changed in the last few months.

1. We received a \$3.6 million premium on our bond sale in January. I had hoped to use that to reduce the amount of bonding that we will do next year, but certainly it is available for this project, and
2. As I mentioned the other night – I had been anticipating bonding \$1 mil or so for new parking meters. Based on our decision to roll out the phone app, I no longer need to bond that.

So I do not anticipate that there will be anything that we will not do as a result of this.

Hopefully the council members will be able to look at the list that we provided and have a discussion on the items that have been added to the scope.

If there are any areas that you, as a facilities committee, do not believe should be in the project, I would hope that you would vote to remove from the list.

Otherwise, although I certainly hope that the project will come in considerably less than \$20.8, we are in a position to be able to move it forward.

Thanks,

Maureen

When responding, please be aware that the Massachusetts Secretary of State has determined that most email is public record and therefore cannot be kept confidential.

3/16/2016

	Funds Required	Spent to date
Aquinas Breakdown of Funds	<b>17,350,000.00</b>	<b>17,350,000.00</b>
Purchase	15,350,000.00	15,350,000.00
Fuel Adjustment to Sisters	13,952.56	13,952.56
Taxes and Recording Fee	45,101.06	45,101.06
Design/ CA Fee	236,482.63	161,482.63 * includes pending invoice for \$54,000
Pre-School Feasibility	20,000.00	
Construction	1,983,110.00	
5% Contingency	99,155.50	
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	(397,801.75)	1,779,463.75
 Current Request	 <b>397,800.00</b>	