

**BOARD OF SELECTMEN
MEETING AGENDA**

**Fuller Meadow School
Nathan Media Room**

143 South Main Street, Middleton, MA 01949

**Tuesday, January 16, 2018
7:00 PM**

This meeting is being recorded

1. 7:00 PM Warrant
Minutes:
 - January 2, 2018 regular meetingTown Administrator updates and reports
2. 7:10 PM Discussion of recreational spaces with Natasha Murphy Bansfield
3. 7:20 PM Vote to appoint Wendy Tirck as an alternate member of the Middleton Council on Aging through June 30, 2018
4. 7:25 PM Vote to appoint Ellen Strobel as an alternate member of the Middleton Council on Aging through June 30, 2018
5. 7:30 PM Vote to accept a donation of \$500 from NEFP Inc., DBA Yankee Fireplace, Grill and Patio to the Middleton Food Pantry
6. 7:35PM Discussion of Lakeview Avenue water pressure issue with engineering consultant, Weston and Sampson
7. 8:05 PM New Business: Reserved for topics that the Chair did not reasonably anticipate would be discussed

The Board reserves the right to consider items on the agenda out of order. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law.

Minutes of the MIDDLETON BOARD OF SELECTMEN
Fuller Meadow School
Nathan Media Room
143 South Main Street, Middleton, MA 01949
January 2, 2018 7:00PM

Present: Chair Brian Cresta, Kosta Prentakis, Timothy Houten, Todd Moreschi, Rick Kassiotis

Absent: None

Others Present: Town Administrator Andrew Sheehan, Assistant Town Administrator Ryan Ferrara, Minutes Secretary Judi Stickney, Lisa Teichner, and others

7:04 PM Chairman Brian Cresta called the meeting to order at 7:04PM, and wished everyone a happy new year.

- **Announcement:** Chair Cresta announced the recent passing of long-time resident, Bob Porteous, who served on the Solid Waste Committee and Finance Committee. Cresta added that the Board sends its condolences, thoughts and prayers to the Porteous family.
- **Warrant:** After a brief review of the weekly bills (\$703,119) and payroll (\$648,433) warrants by Town Administrator Andrew Sheehan, the Board took the following action:
On a **MOTION** made by **Prentakis**, second by **Houten**, the Board of Selectmen **VOTED** unanimously to approve warrant number 1814, dated 1/4/18, as presented.
- **Minutes:** After a brief review of the Minutes of December 15, 2017, December 19, 2017, and December 19, 2017 Executive Session, the Board took the following action:
On a **MOTION** made by **Houten**, second by **Moreschi**, the Board of Selectmen **VOTED** unanimously to accept the minutes as presented. **Prentakis abstained** from the 12/15/17, as he was not present.
- **Town Administrator's Report:** Town Administrator Andrew Sheehan provided the Board with updates and information on the following:
 - **Overflow Room Update:** Sheehan advised the Board that they have been working with the schools, IT, and Cable to plan for an overflow room for future meetings. A quote of \$15,000 was received to upgrade the meeting room. Sheehan added that the money can be obtained from the existing budget, and they should be all set for overflow in the future.
 - **Web Host Capacity Increase:** Sheehan advised that they have added additional capacity through their web host, noting that they will have at least two years' capacity, which may increase over time.
 - **Memorial Hall Update:** Sheehan advised they are making good progress on Memorial Hall, despite the delay in steel delivery. The steel is in and they are now working on the finish work.
 - **Nomination Papers Available:** Sheehan advised that nomination papers will be available Thursday, January 4, in the Town Clerk's office.
 - **Happy Birthday:** Sheehan wished the Minutes Secretary a happy birthday.

7:13 PM Meeting with Tri-Town Council: Lisa Teichner, Executive Director of the Tri-Town Council, met with the Board of Selectmen to review the Fiscal Year 2017 Annual Report. Teichner provided the Board with a hard copy of the annual report to view as she made her brief presentation on the highlights. Some of the highlights included:

- **New Location:** Teichner advised they have moved their office from South Main Street to 7 Grove Street in Topsfield.
- **Core Programs:** Teichner highlighted some of the Council's Core Programs, including:
 - Girls for Girls Program
 - Boys Mentoring Program
 - Camp Program in Middleton
 - YAB: Youth Action Advisory Board
- **Tri-Town Council's 50th Anniversary:** Teichner advised that, this year, the Tri-Town Council has been serving the Tri-Town area for 50 years.
- **Vaping Information:** Teichner provided the Board with an informational flyer on vaping, which is increasing in use by teenagers.

After Teichner's presentation, the Chair thanked the Tri-Town Council for their service to the area's families and youth. Teichner thanked the Board for their support in banning recreational marijuana sales in the Town of Middleton. Teichner closed with information on where interested residents can find information on the services that the Tri-Town Council provides, most notably at the Tri-Town website: www.tritowncouncil.org.

7:36 PM Accept Roads: Chair Cresta advised the Board that they need to formally accept Norma Way, Kassiotis Lane and the Right of Way, per the authorization granted to the Board of Selectmen under Article 1 of the November 7, 2017 Special Town Meeting. After a very brief discussion, the Board took the following action:

On a **MOTION** made by **Kassiotis**, second by **Houten**, the Board of Selectmen **VOTED** unanimously to accept the Quitclaim Deed and Grant of Easements for Norma Way, Kassiotis Lane and the Right of Way, per the authorization granted to the Board of Selectmen under Article 1 of the November 7, 2017 Special Town Meeting.

7:37 PM Community Compact Grant Application: Town Administrator Andrew Sheehan provided the Board with information to view, as he described the Community Compact program and the grants Middleton has received from the program in the past. Sheehan explained that the Town has to identify best practices the Town will work towards achieving and suggested that some of the Town Charter review might be a consideration. A lengthy discussion ensued on the Town Charter, with Cresta noting that the State Legislators seem to be supportive of the Town's current Home Rule Petition to update the Charter. Sheehan suggested that some of the Human Services and IT best practices included some things that are, or could be included in Town Charter review/update. Cresta also pointed out the Town could also benefit from Regionalization Best Practices. After discussion, Sheehan advised the Board that he will keep them up to date on the Community Compact.

7:57 PM Board of Selectmen Meeting Packets Discussion: Assistant Town Administrator Ryan Ferrara provided the Board with information on options for distributing the meeting packets to the Board members, including a review of the process used now. Included in Ferrara's brief presentation were the following:

- **Digitized Packets on the Town's Website:** The public packet is now available on the Town's website.

- **Acer R13 Chromebook and Google Drive:** Packets would be uploaded to the shared Google Drive and Board members would have access to the files they want on the town-provided notebook.

A brief discussion ensued on whether the annual budget could be included, avoiding the large amount of paper that goes into the annual budget binders that the Board reviews and analyzes every year. After discussion, the Board agreed that the proposed use of the Chromebook and Google drive is a good idea. Ferrara noted that it is a work in progress and the process will improve as it is implemented.

8:20 PM ADJOURN

With no further business, on a **MOTION** made by **Prentakis**, the Board of Selectmen **VOTED** unanimously to adjourn at 8:20 PM.

Respectfully submitted,



Minutes Secretary

Kosta Prentakis, Clerk

Documents either distributed to the Board of Selectmen before the meeting in a packet or at the meeting:

1. Agenda: January 2, 2018
2. Town of Middleton Summary of Weekly Bills Payable and Payroll Warrants, 1/4/18, #1814
3. Minutes:
 - 12/15/17
 - 12/19/17
 - 12/19/17 Executive Session
4. Average Tax Bills in Essex County
5. Obituary: Robert Neil Porteous:
<http://odonnellfuneralservice.tributes.com/obituary/show/Robert-Neil-Porteous-105624884>
6. Letter from Tri-Town Council to Board of Selectmen, Re: Fiscal Year 2017 Annual Report, 11/30/17
7. Quitclaim Deed and Grant of Easements: Norma Way, Kassiotis Lane, Right of Way, 12/5/17
8. Community Compact Best Practices

TOWN OF MIDDLETON

COUNCIL ON AGING
PO BOX 855 38 MAPLE STREET
MIDDLETON, MA. 01949
978.777.4067

December 13, 2017

To: Board of Selectmen

Re: Alternates to COA Board of Directors

Dear Board of Selectmen Members,

Please be advised that two residents have expressed interest in becoming alternates to the COA Board of Directors. Their letters of interest were submitted on 11/21/17 and 11/27/17. Both letters were reviewed at the regularly scheduled COA Board of Directors meeting on 11/29/17.

The COA Board of Directors recommends the appointment of **Wendy Tirck** (pronounced Turk) as 2nd alternate, and **Ellen Strobel** (pronounced Strow bell) as 3rd alternate. Both people are Middleton residents and well qualified to serve on the Board. Both have business experience and volunteer experience.

We have the letters of interest on file, if you wish to review same.

Respectfully Submitted,



Barbara Tilton
Chair, COA Board of Directors

Susan Gannon

From: Wendy Tirck <wtirck@verizon.net>
Sent: Monday, November 27, 2017 5:47 PM
To: Susan Gannon
Subject: COA Board

Dear Sue:

This is to let you know that I am interested in being on the COA board in whatever capacity you deem necessary. I have spent many years volunteering for WGBH by producing my own segment of the auction but find that at this time in my life I would like to be more active in my own community.

If you need any more information please let me know.

Best

Wendy Tirck

Susan Gannon

From: Ellen Strobel <strobeellen411@gmail.com>
Sent: Tuesday, November 21, 2017 1:48 PM
To: Susan Gannon; COA User
Subject: Alternate for MCOA

Susan Gannon has asked me to forward to the MCOA my reason for wanting to be an Alternate.
I have always been an advocate for seniors for as long as I can remember.
I would like to be involved in programs that afford the elderly the chance to stay informed and improve their quality of life by giving the opportunity to stay in touch with the community.
Ellen Strobel

Sent from my iPhone



Council on Aging
Old Town Hall
38 Maple Street
Middleton, MA. 01949
978-777-4067
www.townofmiddleton.org

January 2, 2018

Board of Selectmen
48 South Main Street
Middleton, MA. 01949

Re: Middleton Food Bank Donation/ NEFP Inc.

Please add the following donation to your agenda for acceptance by the Board of Selectmen for the Middleton Council on Aging, and notify me when the check has been accepted so that it can then be deposited.

Thank you,



Susan Gannon
COA Director

A donation has been made payable to the Town of Middleton:

Date: 12/16/17

Name: NEFP Inc, dba Yankee Fireplace, Grill & Patio, Middleton MA

Donation: \$500.00 Check Number 9768

This donor would like to remain anonymous Yes No

Donation is in memory of or to honor:

December 15, 2017

5 Centennial Drive, Peabody, MA 01960 (HQ)
Tel: 978.532.1900

Mr. Bob LaBossiere
Superintendent
Middleton Department of Public Works
195 North Main Street
Middleton, MA 01949

Re: Lakeview Avenue Water Pressure Study – Middleton, MA

Dear Mr. LaBossiere:

As requested, Weston & Sampson Engineers, Inc. completed a review of the pressure problems in the Lakeview Avenue area. Historically, the Middleton Department of Public Works has received customer complaints of low pressures, especially at night when the Danvers Water Treatment Plant is offline, on Lakeview Avenue. To investigate the pressure complaints on Lakeview Avenue, a temporary pressure data logger was installed on the high point of the hill from November 2-9, 2017. Weston & Sampson collected a weeks' worth of pressure data, which confirmed pressure variations during the day and night. In addition, on November 2, 2017, we performed a flow test on Lakeview Avenue to determine the available fire flow at the high point of Lakeview Avenue. This document presents the results of the pressure and hydrant flow testing and recommendations for potential improvements to the distribution system in this area to alleviate customer pressure complaints.

REGULATIONS AND EVALUATION CRITERIA

The Massachusetts Department of Environmental Protection (MassDEP) Regulations were used as the basis for our evaluation. MassDEP Guidelines and Policies for Public Water Systems and the Code of Massachusetts Regulations (310 CMR 22.04 and 22.19) require that any public water system must provide all service connections "a minimum residual water pressure at street level of at least 20 pounds per square inch (psi) under all design conditions of flow", including fire flow situations, and not less than 35 psi to all customers under normal conditions of flow. Normal conditions include peak hour demands, which are historically the most severe domestic demand condition. System adequacy is evaluated under a fire flow situation occurring during a maximum day demand condition. Fire flows are typically those as required by the Insurance Services Office (ISO). We anticipate the ISO fire flow to be a minimum of 750 gallons per minute (gpm) at 20 psi where single family homes (as with Lakeview Avenue) are present with relatively good spacing between homes.

PRESSURE AND FLOW TEST RESULTS

Pressure and hydrant flow testing by Weston & Sampson in the Lakeview Avenue area was used to calibrate a hydraulic model which was used to evaluate the distribution system's ability to provide adequate water service (pressure and flow) to the residential area. The pressure test graph and the flow test report are attached for reference.

PRESSURE RESULTS

The average static pressure at the top of the hill on Lakeview Avenue was approximately 28 psi which is below MassDEP's recommended 35 psi. Static pressure at the top of the hill, as documented by the pressure data logging graph (November 2-9, 2017), varies between 15 psi and 35 psi depending on if the water treatment plant is operating.

Improvements to the distribution system are recommended to increase pressure to the homes in this area to improve the static pressure to a minimum of 35 psi when the water treatment plant is not running. Lakeview Avenue consists of an 8-inch cement lined, ductile iron pipeline, installed in 1981, from the southeast entrance of Lakeview Avenue until house #15. The 8-inch pipeline then reduces down at house #15 to a 6-inch cement lined, cast iron pipeline, installed in 1959. The hydrant used to perform the flow and pressure test at the top of the hill is on the 6-inch pipeline in Lakeview avenue, approximately 70 ft. from the 8" X 6" reducer. Due to the relatively new cement lined 8" ductile iron pipeline and cement lined 6" cast iron pipeline in Lakeview Avenue, it is apparent that the low pressures recorded are a direct result of the high elevation of the area.

During the pressure testing, the Danvers water system's storage tanks were operating at a maximum elevation of 230 feet. Homes on Lakeview Avenue above elevation 150 feet may experience pressures below 35 psi when the water treatment plant is offline. Based on the existing elevations of Lakeview Avenue, there are 17 homes above elevation 150 feet which would be experiencing low pressure. In addition, there are 4 homes along North Main Street that may also be experiencing low pressures as they are also around elevation 150 feet, see attached map for reference.

To improve water pressure in the Lakeview Avenue area, the Town could implement a booster pump station to service the entire area or install individual residential booster pump systems in each impacted home to boost the pressure above 35 psi. The costs and benefits of each option are discussed in more detail below in the recommendations section.

FIRE FLOW RESULTS

At the top of the hill on Lakeview Avenue, approximate elevation 178 feet, the available fire flow during the daytime with the water treatment plant running was roughly 980 gpm at 20 psi which is above the anticipated ISO fire flow requirement of 750 gpm at 20 psi. Therefore, fire flows are satisfied for this area when the water treatment plant is online and additional fire flow is not needed.

Using the fire flow test information and the information from the pressure study, the hydraulic model was updated and calibrated to reflect actual field conditions. We then used the hydraulic model to simulate the available fire flow during the worst-case scenario, right before the water treatment plant turns on after being off overnight. When the pressure drops at night, the calculated available fire flow from the hydrant at the top of the hill is essentially zero. However, the second highest hydrant on the eastern side of Lakeview Avenue had a calculated available fire flow just above 900 gpm, during the same conditions. The Town is considering installing a new hydrant on the 6" water main about halfway up the northwest side of Lakeview Avenue. If a new hydrant is installed at approximate elevation 159', the model indicates an available fire flow of almost 800 gpm. In addition, the hydrant on the 16" water main in North Main Street across from Lakeview Avenue at the bottom of the hill had a fire flow of 2,700 gpm. The water main on North Main Street has significant fire flow to treat a fire, but a fire on the top of the hill will require the fire department to pump through their trucks until the water treatment plant operators can respond and turn on the plant.

RECOMENDATIONS

OPTION 1 – BOOSTER PUMP STATION

Installing a water booster pump station will increase pressures in the development while also providing fire flows. Ideally the pump station would be located in a building above ground to avoid confined space entry of water department personnel. However, it is very typical for these pump stations to be located below ground in either a steel or concrete vault for aesthetic purposes and as a cost saving measure. We estimate the cost for a new pump station to be approximately \$750,000 including engineering and construction cost. This cost does not include the potential cost of purchasing land in the Lakeview Avenue area for the new pump station.

OPTION 2 – INDIVIDUAL RESIDENTIAL BOOSTER PUMPS (RECOMMENDED OPTION)

Installing an individual booster pump in each house will satisfy the customer pressure problem in this area. We estimate the cost for installation of an individual booster pump and bladder tank system to be less than \$5,000 per installation. Since most of the development is above elevation 150 feet, 17 homes along Lakeview Avenue would potentially require individual booster pumps. Installation of 17 booster pump systems would cost approximately \$85,000. In addition, based on the elevation of homes along North Main Street between both ends of Lakeview Avenue, approximately 4 additional homes may experience lower pressures. The Town may want to consider installing booster pump systems in these 4 homes as well. This would add approximately \$20,000 to the cost of the project. See attached map for location of potentially impacted homes.

The individual residential booster pumps need to be installed in a dry, accessible area protected from freezing and located by the existing water service meter. The space needs to be large enough to house a booster pump, a bladder tank, the required utility piping and appurtenances to connect the pump to the existing water service, and a backflow preventer if required by the Town, approximately 3' x 3' x 1.5'.

Mr. Bob LaBossiere
December 15, 2017
Page 3

There seems to be reasonable fire flow when the water treatment plant is online and other hydrants can be used (including a proposed new hydrant off the 6" water main on Lakeview Avenue) when it is offline and only a pressure boost to the customers is needed. Therefore, we recommend Option 2 – Individual Residential Booster Pumps be selected by the Town. Attached are details of a residential booster pump and bladder tank system for use by the town in requesting quotes from local plumbers.

Thank you for the opportunity to work with you on this project. If you have any questions please feel free to contact us at 978-532-1900.

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.



Tara E. McManus, PE
Project Manager

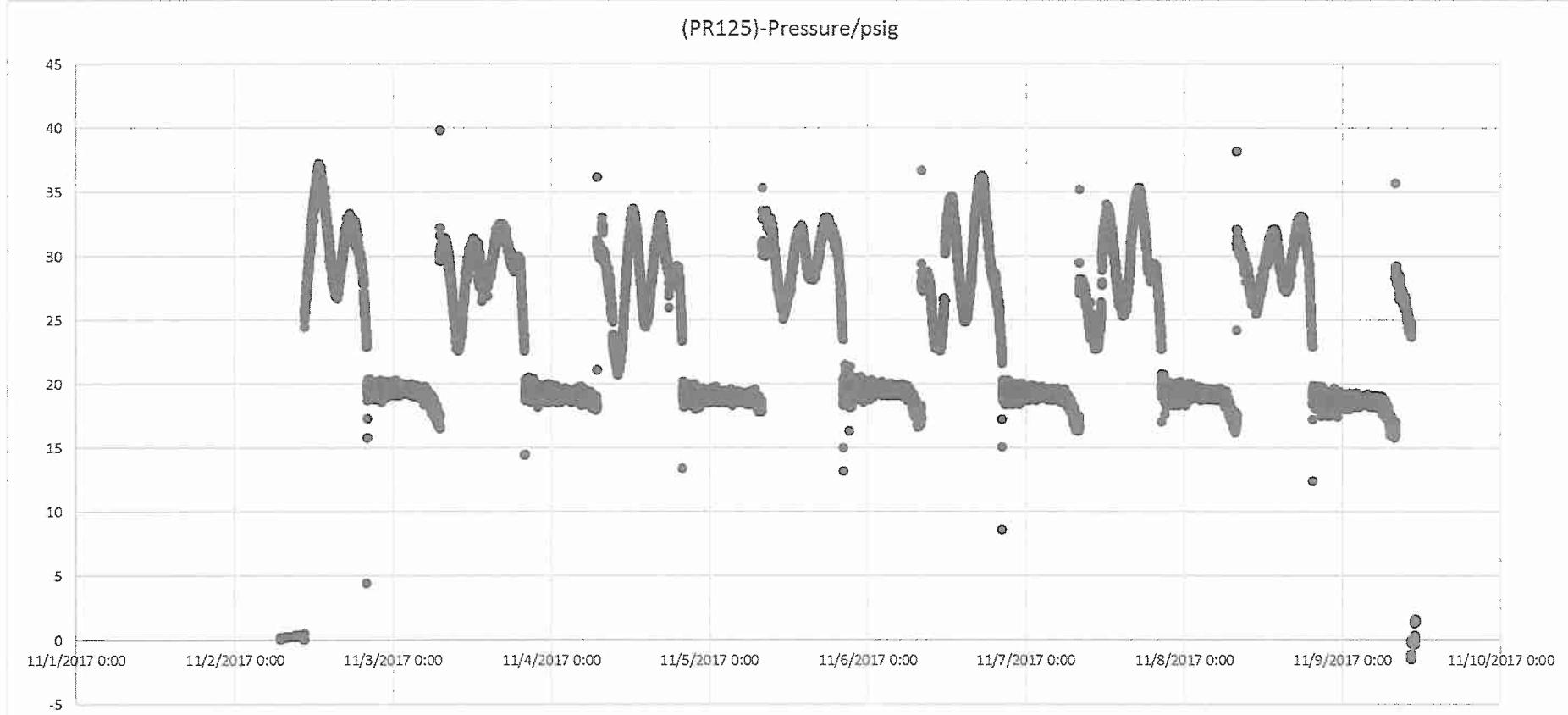
Attachments: Pressure Test Graph (November 2-9, 2017)
Flow Test Report (November 2, 2017)
Aerial Map of Lakeview Avenue Potentially Impacted Homes
Residential Booster Pump & Bladder Tank System Details

CC: Leah E. Stanton, PE, Vice President – Weston & Sampson
Rebecca Gonsalves-Lamontagne, Engineer – Weston & Sampson

\wse03.local\WSE\Projects\MA\Middleton, MA\2170809 Lakeview Ave Pressure Study\Memo\middleton memo.docx

Lakeview Avenue Pressure Data Logger (November 2-9, 2017)

(PR125)-Pressure/psig



Hydrant Test Report

Weston & Sampson Engineers, Inc.

5 Centennial Drive

Peabody, Massachusetts 01960-7906

Tel: (978-532-1900)

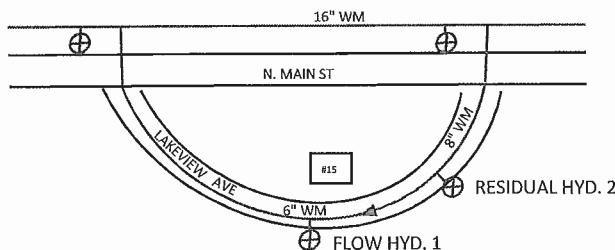
Project: Lakeview Ave pressure study Date: 11/2/2017 Time: 10:30 AM
 Test Number: 1 Inspector: Becca Gonsalves
 City: Middleton State: MA
 Location
 Zone: _____
 Streets: Lakeview Ave
 Weather: Cloudy 60° F
 Sources of supply in operations and rates: WTP 4.31 MGD, F Water pres. 58.45psi, Pump pres. 61.50 psi
 Tank levels: FH tank 43.14', SH tank 17.42'
 Type of development in the Residential
 Required Flow: anticipated 750 gpm @ 20 psi

Hydrant No.	Observed Pressure (psi)	Corrected Pressure (psi)
<u>Hyd @ high point</u>	<u>Static: 27.5</u>	<u>Static: 27.5</u>
<u>H1</u>	<u>Residual: _____</u>	<u>Residual: _____</u>
<u>Residual Hyd</u>	<u>Static: 37</u>	<u>Static: 28</u>
<u>H2</u>	<u>Residual: 33</u>	<u>Residual: 24</u>
	<u>Static: _____</u>	<u>Static: _____</u>
	<u>Residual: _____</u>	<u>Residual: _____</u>

Hyd. No.	Outlet Diam (in)	Coeff.	Main Size (in)	Static Pressure	Pitot Pressure	Flow (gpm)
1	2.5	0.9	8	28		675

Flow available at 20 psi 981 gpm.

Sketch & Remarks:



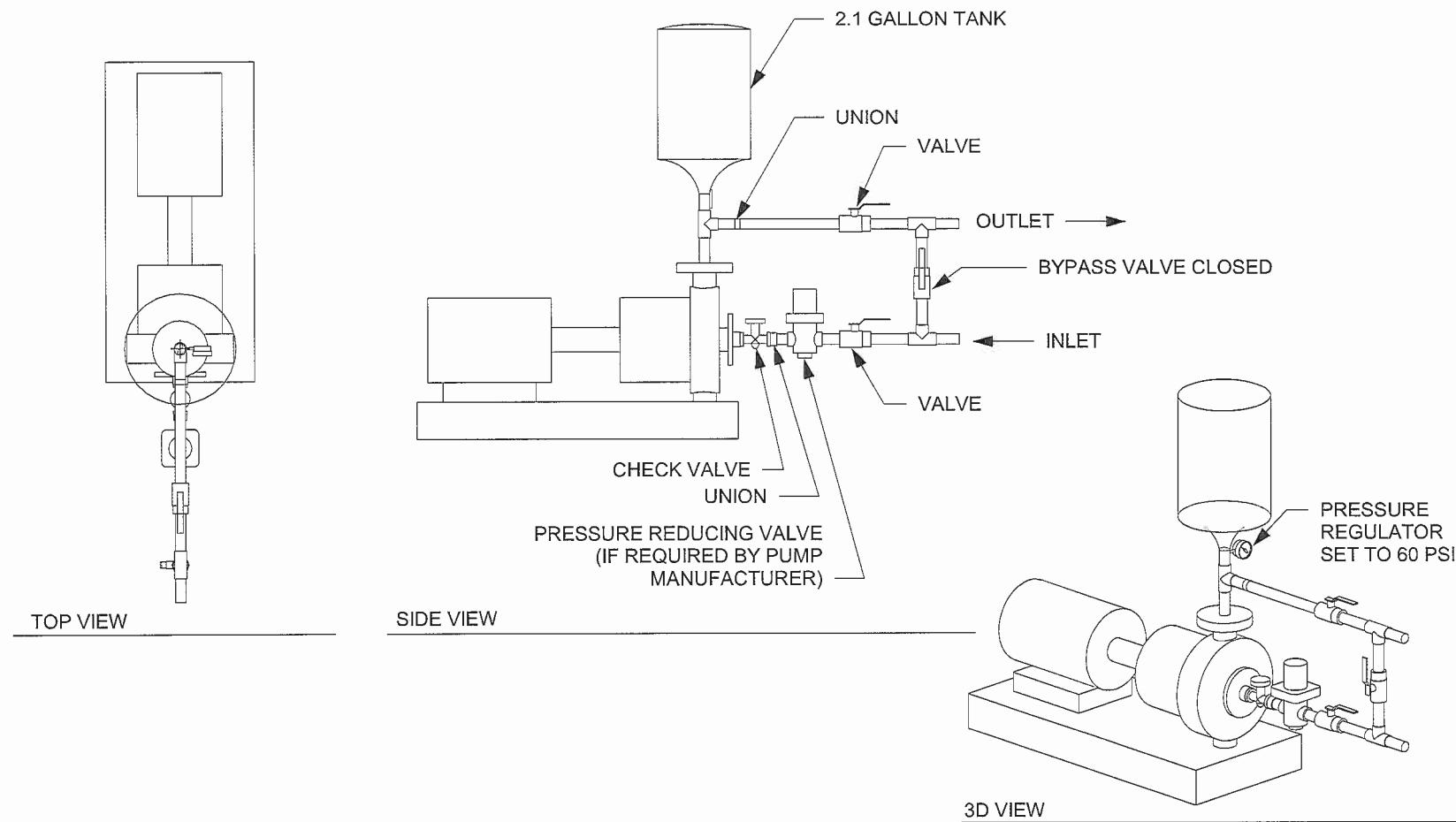
$$Q_{20} = Q_{H1} \left[\frac{(P_{STAT} - P_{20})^{0.54}}{(P_{STAT} - P_{RES.(CORRECTED)})^{0.54}} \right]$$

$$981 \text{ GPM} = 675 \text{ GPM} \left[\frac{(28 \text{ PSI} - 20 \text{ PSI})^{0.54}}{(28 \text{ PSI} - 24 \text{ PSI})^{0.54}} \right]$$

Legend

**Homes Experiencing
Low Pressures**





TYPICAL 1-INCH RESIDENTIAL WATER PRESSURE BOOSTER SYSTEM

Weston & SampsonSM

Weston & Sampson Engineers, Inc.
 Five Centennial Drive, Peabody, MA 01960
 (978) 532-1900 (800) SAMPSON
www.westonandsampson.com