

1 TOWN OF MIDDLEBURY
2 Infrastructure Committee
3 Town Offices Large Conference Room
4 Thursday, November 8, 2018
5 Meeting Minutes
6

7 Committee Members Present: Heather Seeley, Kirk Fiske, Gary Baker, Don Keeler, Luther Tenny, Chris
8 Robbins, Lindsey Fuentes-George and Alternate Judy Wiger-Grohs. Wiger-Grohs would be participating
9 in the meeting, but not voting.

10
11 Town Staff: Town Manager Kathleen Ramsay, Director of Public Works Planning Dan Werner, Director of
12 Public Works Operations Bill Kernan, Accounting Services Manager Jackie Sullivan and Fire Chief David
13 Shaw.

14
15 Others Present: Naomi Johnson, P.E. and Tim Knapp, P.E. of the Dufresne Group

16
17 The Meeting was called to order by Heather Seeley at 8:15 a.m.

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19 Approval of Agenda

20
21 Werner asked to add the Police Department energy conservation measures to the agenda. Baker
22 moved, and Fuentes-George seconded, to approve the agenda as amended. The agenda was approved
23 with 7 in favor.

24
25 Approval of Minutes

26
27 Wiger-Grohs had one change on Line 54 of change "from" to "for".

28
29 Robbins made the motion to approve the minutes as amended, and Baker seconded the motion. The
30 minutes were approved 5 in favor, 2 abstentions (Baker and Fuentes-George).

31
32 Project Updates

33
34 Werner reported on the following projects:

- 35 • Water Monitoring Project is mostly complete and is up and running, and is now integrated with
36 the system that runs the pump.
- 37 • Charles Avenue Project is complete and in a one-year warranty period.
- 38 • Water Reservoir Fence is currently being installed.
- 39 • Sidewalk Project concrete tested above the required 4000 psi at 28 days.
- 40 • Better Roads Grant application for Cady Road culvert has been submitted. He said grant
41 requires the work be complete by June 30, 2020, which doesn't work with the timing of

42 engineering and going to bid, so he has asked the grant program if engineering can begin before
43 grant award notification.

44

45 There was discussion around the Cady Road culvert project and the funding for it. Keeler asked about
46 sleeving existing culverts instead of replacing them, but Werner said if they are hydraulically too small
47 they won't permit it and this one has been determined to be too small.

48

49 Asbestos Abatement at Old WWTF Control Building

50

51 Werner said they walked through the building with three contractors and all three submitted bids. The
52 bids submitted were Catamount Environmental at \$23,750, Mansfield Environmental at \$31,800 and
53 Environmental Hazards Management at \$36,837. He said John Madigan of KG Associates, who
54 prepared the RFP for asbestos removal at this facility, did not have any issues awarding the contract to
55 Catamount and wasn't surprised by the wide-swing in the bid amounts. He said they were all reputable
56 companies who had been doing this for a long time.

57

58 Baker made the motion to recommend the Selectboard award the contract to Catamount Environmental
59 for \$23,750. Fuentes-George seconded the motion. The motion was approved with 7 in favor.

60

61 Electrical Conversion at Old WWTF Control Building

62

63 Werner said he met with three electricians to go over the work that needed to be done to remove the
64 power at the old Wastewater Control Building. He said when the power is abandoned at the old Control
65 Building, a new power source is needed at the old Grit Storage Building behind the Control Building
66 where the Wastewater Department generators are stored. Two bids were received, Newton Electric for
67 \$7,387 and Adams Electric for \$9,408. Werner said there are also some Green Mountain Power fees the
68 Town would pay for directly. He said the funds to pay for this will come from the lawsuit settlement in
69 the Wastewater funds.

70

71 Keeler said he'd rather see the money to pay for this come from somewhere other than the settlement
72 funds, and thinks it should come out of the sewer decommissioning fund. Werner said the thinking was
73 that the settlement funds were to take care of some things that should have been done at the time of
74 the construction of the new Wastewater Plant, and part of that was abandoning things appropriately at
75 the old Wastewater Plant.

76

77 There was discussion around the \$775,000 in settlement funds. Keeler said it's up to the Selectboard
78 how to pay for this, but he'd prefer they use sewer funds in the budget and not use the settlement
79 funds if we don't have to. Seeley said they'd already talked about using the settlement funds to
80 decommission the old facility and this wasn't budgeted for in the sewer budget.

81

82 Fiske moved to recommend the Selectboard use the lawsuit settlement funds to pay for the electrical
83 work at the old Wastewater Plant and to award the contract to Newton Electrical for \$7,387. Robbins
84 seconded the motion. The motion was approved 7-0.

85

86 Finalizing Capital Improvements Budget

87

88 Keeler asked for clarification on the \$35,000 for conversion of heating fuel at the Fire Station #1, since
89 he was under the impression they couldn't convert to natural gas. Seeley said they could convert to
90 natural gas, it just required new piping to do so. Ramsay said Chief Shaw had been asked to investigate
91 other alternatives and was waiting to hear back from this Committee on what the funding would be.

92

93 Baker said that when the Selectboard approved the Energy Committee's Renewable Energy Policy, he
94 felt they should have approved it to start in the next fiscal year and not immediately. Seeley said she
95 understands that policy is for new equipment and this is for dealing with existing equipment, so she
96 didn't feel it would apply in this case.

97

98 Wiger-Grohs felt this should be taken seriously, and consideration for energy conservation need to be
99 made and making a conversion from one source of energy that presents various environmental issues to
100 another one that is as problematic is troublesome, and we aren't moving forward. Baker said he didn't
101 object to that, he objects to the fact the policy took effect immediately. Wiger-Grohs said Chief Shaw
102 was fine with looking at alternatives, and she feels that in the long-run it will cost more if we don't make
103 these environmentally friendly decisions.

104

105 Werner said he felt the one estimate Shaw had for over \$33,000 should warrant getting some other
106 competitive bids. Seeley said this is just an estimate for budgeting. Seeley said the equipment in the
107 Fire Station was only 5 years old, and it's not like the library where there is a need to replace an old
108 system. She said Chief Shaw indicated it would be easier to budget for fuel since the #2 fuel oil prices
109 are so volatile, and while she understands the environmental issues, we have a budget to meet and we
110 need to try to keep costs as reasonable as we can until such time as the equipment needs to be totally
111 replaced. Wiger-Grohs said it's always easier to keep doing what we've been doing, but we can't afford
112 to do that and at some point a change has got to be made. Seeley said we have significant issues with
113 the Library heating system and they are looking for alternatives and we are moving in that direction, but
114 it will be a slow process. She said at this point the Committee just needs to decide whether to budget
115 for this conversion or not.

116

117 Keeler thinks it's a lot of money and isn't in favor of budgeting for it this year. Tenny said there will be
118 savings from converting to natural gas, and you can take those savings and use towards other energy
119 savings work. He said the College only converts when a boiler needs to be replaced, and at the same
120 time they work with Efficiency Vermont and Vermont Gas on air sealing and insulating the building so
121 the BTUs used are less per year, so they're saving money and burning less fuel per year.

122

123 There was more discussion on whether to remove the funds for this conversion from this year's budget.
124 Chief Shaw entered the meeting during the discussion. Seeley said the Committee seemed to be more
125 comfortable taking out the \$35,000 in this year's budget until more information can be obtained. Tenny
126 said they were questioning the payback, and Shaw said the estimate is a \$5,500 savings per year, or a 7-
127 8 year payback. Shaw said there is one heating system with two boilers, the 5 year old boiler that runs
128 on propane and the 20 years old boiler that runs on #2 fuel oil. He said when the station was built they
129 knew natural gas was coming, so at the time all the devices installed were easily convertible to natural
130 gas, but smaller piping had to be installed due to piping requirements for propane. He said this \$35,000
131 covers the new piping and retrofitting the roof top units and the gas boiler, not the old boiler which
132 would remain on #2 oil.

133
134 After further discussion on whether to put this work off and the possibility of losing some savings on fuel
135 if the work is put off for a couple of years. The final decision was to move it to FY21 to time for more
136 information.

137
138 After further discussion on some other items in the Budget, Seeley made the motion to recommend to
139 the Selectboard the Capital Improvements Budget for FY200 of \$1,302,021. Fiske seconded the motion.
140 The motion was approved with 7 in favor.

141
142 Water System Modeling and Hydraulic Evaluation Report

143
144 Naomi Johnson, P.E. and Tim Knapp, P.E. of the Dufresne Group joined the Committee to go over the
145 report.

146
147 Johnson said this modeling is a computer model of the water system and is based on some fairly old
148 technology, but is current for this day and age and interfaces with the Town's existing GIS system. She
149 said they had looked at the existing system and if there were any issues regarding compliance with State
150 Regulations, and they also looked at proposed water main replacement projects. She said they also
151 looked at the water storage tank and its capacity and how it would work to serve our needs now and in
152 the future. Knapp went over the process of analyzing the demands of the existing system for the past
153 10 years.

154
155 Johnson said the hydraulic study is the result of an evaluation of a 20-year planning period by looking at
156 demands, population and other growth trends for the community, to project the demands for the
157 future. She said looking at just the State's requirements all users require a minimum of 35 psi during
158 normal conditions, and in all conditions (fire flows) should not go below 20 psi. She said they look at the
159 daily demand and fire flow to see if the minimum pounds per square inch (psi) can be met, or does
160 anyone drop to below 20 psi. She said Middlebury is in good shape as far as pressure goes, and there is
161 only one house right next to the reservoir that has a psi of 33, and this is because he's too close to the
162 reservoir.

163

164 Johnson said the existing reservoir is 1.5 million gallons, and you need to be able to store one day's
165 worth of the average day demand, and we should provide additional for fluctuation in the tank as water
166 is drawn out during the day and refilled from the wells. She said about 25% of the maximum daily
167 demand is a normal fluctuation. She said you also need to be able to provide for fire flow, and in most
168 cases the maximum is about 3,500 gallons per minute and the Insurance Services Office (ISO) requires
169 this for a period of 3 hours, which is .63 million gallons. She said if you add together the .63 million for
170 fire flow, the average daily demand, which is estimated in the future to be 1.5 million gallons, and the
171 fluctuation component, under the ISO criteria additional storage is needed. She said the State requires a
172 minimum of 500 gallons per minute (GPM) for fire flow, but if our Fire Department wants to meet ISO
173 standards, then 3,500 GPM is needed.

174

175 Knapp said using the modeling to see how our current system responds to fire flows, the Painter Hills
176 area and part of Happy Valley Road, cross-country up to Munger Street, and one small area off South
177 Main Street currently can't meet the State minimum of 500 GPM. Keeler said he lived in the Happy
178 Valley Road area and asked if his ISO rating would be greater than someone who lives elsewhere in
179 town. Johnson said ISO looks not only at fire flows, but also at the Fire Department itself and their
180 equipment and what type of support is available from surrounding departments, and they give the
181 community an ISO rating, not individuals.

182

183 Knapp said when using the ISO standards there were three areas that fell below the minimum pressure
184 of 20 psi, and those areas were the Painter Hills area, some areas on Munger Street and north of
185 Specialty Filaments on Case Street, and this is assuming the wells are off at this time.

186

187 Johnson went over the deficiencies with the system, such as the house on Springside Rd that was below
188 35 psi, the few areas that don't meet the fire flows, and the areas with pressure drops with fire flows,
189 and the storage deficiency. She said one other area that is a problem are water hammer issues at
190 Middlebury College, and they've seen pressure recordings from the College showing a problem that
191 need to be studied further. She said more pressure recordings need to be done to help pinpoint when
192 it's happening and then look at causes.

193

194 Johnson said they looked at the list of priority water projects the Town has and put them into the
195 existing system model to see what effect they would have. She said the projects would improve fire
196 flows in the problem areas, but the one area that wasn't improved with these projects was the area
197 north of Specialty Filaments. She said one of their suggestions would be to utilize the pond. She also
198 said one of the proposed projects is a water storage tank on the A. Johnson lots east of School House Hill
199 Road. She said even by adding this storage, it only improves flows a little at Specialty Filaments and
200 didn't improve the low psi to the houses north of this location.

201

202 She said she didn't change the priorities of the water projects, because overall the system is in pretty
203 good shape, so there wasn't a hydraulic need to change the priority. They also provided project costs

204 for these projects, including all parts and work above grade, and total project cost, including
205 administrative costs, engineering costs and a 15% contingency.
206

207 Tenny said one thing that drove the need for this study was guidance on a couple of projects, and one of
208 those was doing a loop to the end of Exchange Street, which was more a reliability issue, and wondered
209 if that had been evaluated specifically. He also asked about Merchants Row and the water line
210 underneath the railroad and how it would impact the downtown hydraulically if that line is eliminated.
211 His final question was had they looked at the number of hydrants that attach to 6" lines, since he
212 believes standards call for hydrants to be attached to 8" mains. Johnson said the State has been
213 clarifying their standard lately and now they're saying if the hydrant can provide adequate flow you
214 don't need to replace them. As far as his first two questions, they have not evaluated those two specific
215 areas hydraulically, so they will look at them in more detail and give them a report.
216

217 Seeley asked about a comment in the report regarding how leakage may be significant in our system.
218 Johnson said one sign of leakage is all the breaks that occur in a year, but there is an indication there
219 may be leakage in general through the system. She said leakage could be happening on a daily basis,
220 along with normal usage. She said a water audit would show what we supply, what the meters indicate
221 we use, and other uses that are used for other purposes, then look at what water is unaccounted for.
222 She said it's not a hydraulic issue. Werner said the last audit we had done was in early 2000s and he just
223 compared meter readings to what the wells were pumping.
224

225 Gary Baker left the meeting at this time, and Wiger-Grohs would now be voting on motions.
226

227 Seeley asked where they felt the need for additional storage capacity came in the list of priorities, and
228 Johnson said she didn't assign it a number, but she feels it's high priority and the State has flagged it as a
229 deficiency in the Town's system, so she thinks it would be in the top three.
230

231 Keeler asked if the water that comes out of the reservoir is metered to know how much is used, and
232 when was the last time the cross-country line was walked to check for leaks. Werner said the water
233 coming from the reservoir isn't metered because not all the water that comes from the wells goes to the
234 reservoir, and he said if there was a significant leak on the cross-country line, they would see it
235 immediately on the chart and it would indicate where it was. There was also additional discussion on
236 the ISO standard and the factors that impact it.
237

238 Johnson said they'd look into these questions and any further questions they wanted to send to them,
239 and come back with a final report.
240

241 Tenny had one more comment on the pressure problem at the College, and said it isn't from average
242 usage, something else is going on and he doesn't know if it's having the reservoir on one side of Town
243 and them on the other, but he's willing to work with them on further monitoring. Seeley said she has

244 this on the list as one of the items to work on at some point. Tenny said it is better than it was 5 years
245 ago.

246

247 Railroad Platform

248

249 Director of Planning and Zoning, Jennifer Murray joined the Committee to discuss the Planning
250 Commission's recommendation for the location of the railroad platform.

251

252 She said the Planning Commission reviewed the survey results and looked at their own priorities, and
253 explained how they arrived at their recommendation of the Middle Seymour/Maple Street location.

254

255 Tenny asked what role the railway played in the decision. Murray said the railway asked the Town to
256 come up with a location and once the Selectboard approves the final site, then VTrans will do the final
257 plans. Fuentes-George asked if an exact location in the Middle Seymour/Maple Street area had been
258 determined, or if it would be just be somewhere in that areas. Murray said conceptual plans showing
259 the location chosen had been prepared, but it could shift one way or the other in the final design.

260

261 Keeler made the motion to endorse the Planning Commission's recommendation of Site #1 (Middle
262 Seymour/Maple St) to the Selectboard. Tenny seconded the motion. The vote was 7 in favor of the
263 motion.

264

265 Local Option Funds

266

267 Ramsay said there is a surplus of around \$400,000 over what is needed for debt service and
268 maintenance of the bridge, so Werner is proposing using some of this surplus to offset the increase in
269 the FY20 Capital Improvements Budget. She said this would not touch the fund balance of just over \$2
270 million dollars or the surplus we will receive this year. Seeley reminded the Committee that in the last
271 budget year the voters approved using \$57,484 to offset the increase in the FY19 Capital Improvement
272 Budget.

273

274 Keeler said voters approved this local option tax to help pay for and maintain the bridge, and they never
275 intended these funds to be used to supplement the budget, so he's opposed to it.

276

277 Tenny said the Town has a growing list of deferred maintenance on our infrastructure that we can't
278 keep up with using existing funding, and we have another source of money that is potentially available
279 then we should tap into to catch up on this maintenance. Seeley agreed with him.

280

281 Robbins said this money should be used for something that is definable so voters will know what the
282 funds are being used for and it isn't just being used as a slush fund. Ramsay said she felt that was the
283 intent of Werner's memo regarding the proposed use of these funds.

284

285 Keeler asked Werner what type of maintenance is needed in the next few years on the bridge. Werner
286 said in 2021 VTrans would be paving the bridge at no cost to the Town, along with all the other Class 1
287 highways in Town. Seeley said the engineers provided a list of what maintenance needed to be done
288 over the next 30 years, and provided the cost of those jobs. She said that money is already accounted
289 for, so this money we are talking about is over and above the money for the bridge repairs. Keeler said
290 adding 1% tax to everything purchased in this town is a burden on some businesses in town.

291
292 Fiske made the motion recommending the Selectboard ask the voters at Town Meeting to use \$296,119
293 of the Local Option Funds for specific projects in the FY20 Capital Improvements Budget. Fuentes-
294 George seconded the motion.

295
296 There was further discussion on the use of the funds. Robbins asked if there was a reason the funds
297 couldn't be used for water projects, since she thought voters would be more excited about using the
298 money for a new water line than culverts. Seeley said it can be spent on whatever voters approve it be
299 spent on, and this recommendation is only around \$300,000, so the use of the additional \$2 million for a
300 water project could still be a possibility.

301
302 The vote on the motion was 4 in favor, 1 abstention (Keeler) and 2 opposed (Robbins and Wiger-Grohs).

303
304 Police Department Energy Project

305
306 Werner said Judy Harris had submitted a proposal for her time to move forward with the energy project
307 at the Police Department, and the cost for her maximum hours is \$4,875. Werner described the
308 projects recommended by the Energy Committee; one is to do the air sealing at the wall joints and to
309 get a package together for infilling the east and south walls of the building. He said this could be phased
310 through the Capital year so the roof and walls would be done first, and then use some of the funds for
311 the infill project. He said the money to pay for Harris would come out of the Energy Committee capital
312 funds. Seeley asked if the Energy Committee was alright using these funds, and Robbins (who is on the
313 Energy Committee) said she knew they'd allocated \$9,000 for the Police Department this year, but she
314 couldn't speak for the whole Energy Committee.

315
316 Tenny felt the administrative cost of \$4,875 was out of proportion for a project that is estimated to cost
317 \$6,000. Ramsay said the \$6,000 estimate wasn't exact, and while she understood his concern, they
318 didn't feel there was any way to move this project further in-house. Seeley said current staff is at
319 capacity and we want to move these projects forward. Fuentes-George asked if there was anyone else
320 who could give a quote, and Seeley said Harris is working on the adaptive-use of this property already
321 and has worked for us in the past. Ramsay said she thought this estimate was fair.

322
323 Robbins moved to approve Judy Harris's proposal for the energy projects at the Police Department.
324 Keeler seconded the motion, and the motion was approved with 6 in favor, 1 abstention (Tenny).

326 Committee Concerns

327

328 Keeler was curious about the Washington Street water break and asked if it was something that needed
329 to be concerned about. Bill Kernan said the whole section of water line needed to be replaced. Seeley
330 said they needed to get some water line replacement projects going, but now the engineers have
331 identified capacity as one of the top priorities as well. Keeler also remarked on the need to get
332 Exchange Street line done so businesses don't leave because of the condition of the line.

333

334 Tenny is concerned about the rutting in the pavement on Court Street in front of the Thomas Street
335 intersection as we head into the winter months.

336

337 The next Infrastructure Committee meeting is scheduled for Thursday, December 13, 2018 at 8:15 a.m.
338 at the Town Offices.

339

340 Respectfully submitted,

341 Beth Dow

DRAFT