

**Board of Public Works  
of the City of Onalaska**

Tuesday, February 6, 2018

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1 The Meeting of the Board of Public Works of the City of Onalaska was called to order at 6:30  
2 p.m. on Tuesday, February 6, 2018. It was noted that the meeting had been announced and a  
3 notice posted at City Hall.

4  
5 Roll call was taken with the following members present: Mayor Joe Chilsen, Ald. Ron Gjertsen,  
6 Ald. Harvey Bertrand, Financial Services Director/Treasurer Fred Buehler, City Engineer Jarrod  
7 Holter

8  
9 Also Present: City Administrator Eric Rindfleisch, Assistant City Engineer Kevin Schubert, Ald.  
10 Jim Binash, Ald. Bob Muth

11  
12 **Item 2 – Approval of minutes from previous meeting**

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14 Motion by Ald. Gjertsen, second by Ald. Bertrand, to approve the minutes from the previous  
15 meeting as printed and on file in the City Clerk’s Office.

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17 On voice vote, motion carried.

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19 **Item 3 – Public Input (limited to 3 minutes/individual)**

20  
21 Mayor Chilsen called for anyone wishing to provide public input.

22  
23 **Jim Binash, First District Alderperson**  
24 **700 Westwood Drive**  
25 **Onalaska**

26  
27 “[Regarding Item] No. 11 this evening, I don’t know if this would be appropriate or not, but I  
28 wonder if it would be more advantageous for the city to buy a high-tech drone and use that for  
29 the photos. If that would work, it might save some money. Thank you.”

30  
31 Mayor Chilsen called three times for anyone else wishing to provide public input and closed that  
32 portion of the meeting.

33  
34 **Consideration and possible action on the following items:**

35  
36 **Item 4 – Review and consideration of treatment for Corrosion Control within City water**  
37 **system, including professional engineering and laboratory services**

38  
39 Jarrod noted he had presented the Wisconsin Department of Natural Resources Sanitary Survey  
40 to the board at its January 2 meeting. Jarrod referred to a copy of a letter included in board  
41 members’ packets from Charlie Cameron, Environmental Engineer for the Wisconsin DNR and

Reviewed 2/8/18 by Jarrod Holter

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42 read the first paragraph: “As discussed on the phone today [January 2] and during the December  
43 sanitary survey, the [DNR] recommends the city resume treatment for optimizing corrosion  
44 control. The reason for the recommendation is that your 90<sup>th</sup> percentile copper levels continue  
45 to be elevated and are close to the federal action level of 1,300 milligrams per liter for copper.  
46 Improvements in your flushing and disinfection programs, while important, do not appear to  
47 have had an appreciable effect on reducing copper levels. It is unlikely the city will continue to  
48 remain below the action level without addressing uniform corrosion and addressing uniform  
49 corrosion would require treatment.”

50

51 Jarrod said, “What the DNR and EPA [Environmental Protection Agency] call corrosion control,  
52 it’s basically the interior of our piping system with our water chemistry that we have with the PH  
53 of our water, due to where our water comes from and the hardness of it, it tends to be aggressive  
54 on our piping system. Fortunately, we have very little lead in our system. Our city did not  
55 specify lead services for services in the street, but we do have almost every service in the city is  
56 almost copper, where we get into the copper part of this area.” Jarrod referred to the final page  
57 of Charlie Cameron’s memo and read the following: “The [DNR] is supportive of your  
58 consideration to resume treatment to optimize corrosion control.” Jarrod explained that in years  
59 past, prior to the current treatment process at Well No. 9, the city added a compound called  
60 polyphosphates. Jarrod said polyphosphates were added in the early 1990s because Well No. 9  
61 was experiencing elevated levels of iron and manganese once it went online. The elevated levels  
62 caused black lines to build up in plumbing fixtures in residents’ homes, and the polyphosphates  
63 were added to sequester the iron and manganese. Jarrod said the city received “a little bump” of  
64 corrosion control with it, but it was not meant for that. As a result, the city removed the  
65 polyphosphates in 2012 because Well No. 9 was not being utilized at the time due to the iron and  
66 manganese levels, and a decision was made to install a treatment facility at the well. The  
67 treatment facility was installed in 2015.

68

69 Jarrod referred to a copy of a memo included in board members’ packets from Process Research  
70 Solutions, LLC, an engineering testing firm the city has worked with in the past, and highlighted  
71 the following:

72

- 73 • PRS monitoring station studies were performed in 2008, 2009, and 2010 to determine  
74 why copper was elevated in the drinking water. PRS completed a 50-page report in 2010  
75 outlining water quality investigation of the city’s system.
- 76 • In 2012, the Wisconsin DNR requested that the phosphate chemical be stopped  
77 completely, and the chemical was removed from the water system.
- 78 • Approximately every three years, the city is required to test for copper and lead levels  
79 within its water system. A graph included in the memo shows a dashed line at the 1,300  
80 milligrams per liter action level. The city has been below that level since the mid-1990s;  
81 however, levels have been increasing since 2011. The city was just below 1,300  
82 milligrams per liter in 2017.

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- 83       • Ten percent of the samples are allowed to exceed 1,300 milligrams per liter. A couple of  
84       samples exceeded 1,300 milligrams per liter in the statistical analysis, and at least six  
85       samples were within the 1,200 milligrams per liter range. In addition, the lower samples  
86       of the 30 taken had started to elevate.

87

88 Jarrod said, “What we’re proposing to go forward with with Process Research Solutions, and  
89 going over it with [Charlie Cameron], there are limited amounts of things we can do with our PH  
90 and the hardness of our water. Some municipalities add caustic soda [also known as sodium  
91 hydroxide and lye], and I would have to have Jim [Public Works Director Jim Prindle] come in  
92 and give you a better explanation of some of these things. We could add a compound called  
93 orthophosphate that would basically line our piping system. That way we would not have the  
94 release of the copper that you see in our system. In order to do that, we would have to have a  
95 report from an engineer with what is called bench testing, which would be laboratory results  
96 looking at what feed rate we should do and what this would encounter in our system before we  
97 would actually do it. We don’t actually want to take a treatment level out of the air, put it into  
98 our system and then not know what those effects would be.

99

100 In this memo from Process Research Solutions, we’re actually outlining a plan of attack. We  
101 previously had the two monitoring stations in our one well and the OS booster station. We  
102 would be reinstalling those at Well No. 8 and the OS booster station. Those are the sites they  
103 were in before. If we move forward with this, by April we would propose to have the stations up  
104 and running. The memo states four to eight weeks to develop the films on the metal plates that  
105 are in there. They need some time to actually react to our system. We would have that done by  
106 June of 2018, then in the next two to three months we would actually start looking at how much  
107 copper is released and how it’s affecting the system. Those plates would be removed and tested,  
108 and the water coming through the testing device would be tested twice a week to see what the  
109 copper levels are. That would take us to September of 2018. At that point we would know  
110 through the testing device what our copper release was. In approximately September of 2018 we  
111 would start to try to feed the orthophosphate at different levels to see how that would affect the  
112 copper plates, and how that would affect our copper release. That would probably take us to  
113 December of 2018, and at that time hopefully we would have a proper amount of orthophosphate  
114 we could add to our system and have data behind it to give to the DNR to say this is what we  
115 think will happen and this is what we want to do. Then we would have a feed rate that we would  
116 go through. I’m saying December of 2018, [but] it could be anywhere between then and March  
117 [2019] depending on how things go. We might have to slow down for a month depending on  
118 what’s happening with the testing results. Maybe we try a feed rate and we want to go lower or  
119 more and see what’s happening. That is the reason we have about a year into this; we actually  
120 have it slated to March, April or May of 2019.

121

122 What we are proposing is, over the course of the next year, we would have not to exceed \$17,000  
123 for [Process Research Solutions] to do the data analysis and do the work on the plates and assist

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124 us with those things and the DNR-needed reports. We would also have about \$21,280 for  
125 purchasing the plates and the laboratory work. It would be continuous laboratory work that we  
126 would send out to a laboratory firm to analyze the plates and tell us what the copper levels were.  
127 I think we are being proactive. I know that when I looked at the copper levels once Jim had  
128 gotten them back, as they started coming back from the lab we started getting them back in  
129 groups based upon when we took the samples last summer, I knew that we would be needing to  
130 address corrosion within our water system. I did not plan on it starting until probably the  
131 summer of 2018, but with the letter from the DNR from the regional engineer I really feel we  
132 should start it now. If we get this done within the next year and get the orthophosphate – if that’s  
133 the road that we go down, [and] that I think we will be going down and get that operating in our  
134 system in the next year – we can give it a year to work in our system so that by the time we get to  
135 the third year we’re actually taking our next set of compliance samples for the DNR. I think  
136 we’ll be in a good state to pass that testing, and hopefully by then we will actually physically see  
137 our copper levels be reduced. ... Once we get going and doing this there will be reports coming  
138 in, and we will be updating the board on what we’re finding and which direction we’re going to  
139 go.”

140

141 Ald. Gjertsen asked Jarrod, “What happens if we do nothing?”

142

143 Jarrod responded, “The DNR will probably send us a more stern letter that will say that we need  
144 to be doing something to get ready for it. Our next compliance sampling would come in the  
145 summer of 2020. If we so choose to not proceed with any action and we exceed the action level,  
146 we will not only have to do the corrosion study, we will also be put into more sampling. Instead  
147 of sampling once a year we will have to sample twice a year, and instead of sampling 30 sites we  
148 will have to sample 60. We only have a certain tier of homes. They have to be homes built  
149 between 1982 and 1985, and there are only so many of them in the city. We already have a very  
150 difficult time trying to get into those homes to get samples. If we exceed the action level we  
151 basically quadruple our amount of sampling. There would be a full-time person just doing the  
152 sampling to try to get it done. That’s part of the reason we’re trying to be proactive.”

153

154 Ald. Gjertsen said, “The corrosion itself ... I did read all this material, and some of it I  
155 understand straightaway. [Regarding] the polyphosphate, we have chlorine in our water.”

156

157 Jarrod told Ald. Gjertsen he is correct and said, “We are also seeing chlorine levels increasing.  
158 Those are two things that will eat at the cause, and that’s part of the study.”

159

160 Ald. Gjertsen said, “That’s what causing the ... Every metal is going to corrode. There are very  
161 few that don’t. As I read through it, the one thing that popped out to me was that. The chlorine  
162 and the polyphosphate reacted together, and that’s why we’re getting elevated ... Somebody has  
163 to know what happened here, and the reason I’m taking that route is we’re not very sure. I read  
164 the ortho. We’re not sure where we’re at to make the fix. Do we need to do something? The

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165 DNR is the one pulling the strings on this.”

166

167 Jarrod said, “Actually, the EPA is going to ...”

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169 Ald. Gjertsen said, “The EPA and the DNR want the right bucket and the left bucket. My  
170 concern is, do we actually know that we’re not going to have some adverse effect from the  
171 ortho? Do we actually know that?”

172

173 Jarrod responded, “We used to add polyphosphates, and we quit that in 2012. Since 2012 we  
174 haven’t added any phosphates to our water system. We do add chlorine to our water system. We  
175 add gas chlorine for treatment of the water to ensure that it is safe to drink. We feed at a level  
176 that in our system we are a unique system because we are an elongated, angular system that we  
177 have wells in the north end of town, plus a well by [Onalaska] High School. We have far  
178 reaches that we’re trying to push the water out toward Woodman’s and South Kinney Coulee  
179 Road and the La Crosse Landfill. We feed rates of chlorine that we can keep a residual of .3  
180 milligrams per liter, which is required by the DNR for disinfection, that we actually test out in  
181 the furthest extents of our system. We send in Bac-T samples staggered every week at different  
182 sites, but they make us take those at Cedar Creek, Nathan Estates, Lauderdale, out by the La  
183 Crosse Industrial Park, and South Kinney Coulee Road at the furthest reaches of our system.  
184 That’s part of the reason we do feed a lot of chlorine into our system: to keep the disinfection  
185 level in the outer reaches.

186

187 In talking with other areas, La Crosse has been adding a combination  
188 polyphosphate/orthophosphate blend, more so for the sequestration of the iron that they’ve been  
189 finding in their system for about five years. In talking to Abigail Cantor from Process Research  
190 Solutions, she has found similar areas that have had similar reactions as our water system had.  
191 She thinks this is what we will see and will be able to make it work.”

192

193 Ald. Gjertsen said, “But we don’t know.”

194

195 Jarrod said, “A water system is basically a working chemistry set. There is no way I’m going to  
196 be able to tell you that for sure. There is no formula that is going to tell us that it is going to  
197 work for sure.”

198

199 Ald. Gjertsen said, “The reason we were putting the poly in was to control basically the same  
200 thing that we try to control within the house.”

201

202 Jarrod responded, “We were controlling the iron and the manganese that we found in our system,  
203 we were getting to the point ... Basically out by the Woodman’s area and out by North Kinney  
204 Coulee Road we were getting black ring in toilets and sinks. We started adding that  
205 polyphosphate back in the early 90s. What we would find is it would precipitate out quite a bit.

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206 We would find it in our reservoirs. It was like a fluffy material that when we would clean the  
207 reservoirs we would suck it out. It would precipitate that material out so you wouldn't get that  
208 ring. I wish I had a cut-and-dried solution. I think we need to go down this path and be  
209 cognizant of looking at what is happening as we go down this path to make sure that we as staff  
210 are monitoring what we're doing and hopefully getting the results we need or we think we can to  
211 succeed at lowering the copper levels. I don't want to go down the road and come back in 18  
212 months and say, 'We tried it, we spent all this money and we have no more answers.' That is not  
213 my overall goal, but I would like to get to the point where we can do something that is DNR  
214 compliant. As I stated when we did our sanitary survey for the water system, we always strive to  
215 give the best water we can, and the safest water [we can]. We try to ensure that we're meeting  
216 the public health and safety standards. We just had an interview a week ago about safety  
217 standards of water, and we try to be the best we can when we're supplying that precious  
218 resource."

219

220 Ald. Bertrand asked if the DNR has been consistent in terms of this standard.

221

222 Jarrod said the EPA established the lead and copper rule in the early 1990s, and the DNR has  
223 been requiring sampling of municipalities "for a long time." Jarrod said the EPA has been  
224 working with the Wisconsin DNR in a much closer fashion, adding, "After [what occurred in]  
225 Flint, Michigan a few years ago, everything to do with corrosion and lead and copper has been  
226 elevated. The Wisconsin DNR is feeling more pressure from the EPA that they are needing to  
227 ensure that we are following the rules. Now with that, I think the way we've been testing and  
228 just the data that we showed in the last two cycles of our copper levels going up, I don't envision  
229 that going down, so I don't think that's a ... The Wisconsin DNR sent us the letter that is dated  
230 January 2, but I think even without the letter and just with the data we have ... before we even  
231 got the letter we knew that we had to address something."

232

233 Motion by Ald. Bertrand, second by Jarrod, to approve treatment for corrosion control within  
234 City water system, including professional engineering and laboratory services with Process  
235 Research Solutions, LLC at a cost not to exceed \$38,280.

236

237 Ald. Bertrand asked, "Would we anticipate doing this every year or every two or three years?  
238 What's down the line?"

239

240 Jarrod said, "I would hope once we get this ... If the path we lead down and would continue  
241 down that path where we would get to the point where we could find out if orthophosphate is the  
242 solution and we find a suitable feed rate, once we find that feed rate we would not be having to  
243 do this like this every year or every other year. We would start feeding it, and hopefully we  
244 would see the results and move forward. We did have the monitoring stations in for three years  
245 back in 2010, 2011 and 2012, then we took them out and did not approve any more work because  
246 we had some data and did not move forward with any more. I would hope that once we get the

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247 feed rate done, we'll still have more lab work, per se, because we would be testing a little bit  
248 more in our water system. But I don't think it would be anything as much as this or on a yearly  
249 or twice-yearly basis."

250

251 Ald. Gjertsen asked, "Is there another way we can go around getting the data of it and we're the  
252 guinea pig? That's kind of what we're doing – we're doing our own little lab research project on  
253 the fly. That's what I'm getting. I understand what we're trying to do. I definitely do. My  
254 concern is when we did the polyphosphate our elevation is coming from that, along with the  
255 chlorine. Do we know we're not going to have something similar? That's why I'm  
256 apprehensive on this."

257

258 Jarrod said, "What I look at with some of the data, the average level of copper, you look at the  
259 tests in here, it slid up from 1995 to 2002. Then [it decreased] from 2002 to 2011, and that was  
260 while we were adding the polyphosphates. We didn't add polyphosphates after 2012. We were  
261 already starting to go up in 2011, and we were definitely up in 2014 and 2017. I don't think we  
262 had any increase from the polyphosphates, per se. It's kind of like going to the doctor [in that]  
263 we can always get a second opinion. I would agree with you, Ron, that we are kind of  
264 conducting a laboratory experiment that we're putting in the sampling station to see what we're  
265 going to get, and then try to get the right feed dose. It's under a controlled circumstance, so I  
266 hate to feed a really low amount in the system and then we'd be testing it for the next two years  
267 trying to figure out where the sweet spot is. I think we're going to get there faster by doing it  
268 this way. I shouldn't say 'faster,' because it's going to be a process to get to that point. But I  
269 think we're going to be, once we get to that point through the process, then we'll have where we  
270 need to be."

271

272 Ald. Bertrand said he believes there are many cities in the nation that have mineral contents  
273 similar to that of the City of Onalaska, adding he also understands that every water distribution  
274 system is different. Ald. Bertrand said, "This is not unique in terms of Onalaska. I'm still trying  
275 to figure out why you want to use the term 'experiment.' It's not like we're the first ones to ever  
276 do this."

277

278 Jarrod noted the city receives a monthly periodical from the American Waterworks Association,  
279 and he said there have been several articles over the last couple years pertaining to corrosion.  
280 Jarrod said the January issue includes an article titled "Managing Water Quality – Control Lead  
281 in Drinking Water." Jarrod summarized the article by telling board members orthophosphates  
282 are being utilized to do what the city intends to do to eliminate corrosion concerns. Jarrod told  
283 Ald. Bertrand he is correct in stating this is a national issue.

284

285 Ald. Bertrand said, "If this is not harmful, which apparently it's not, if it's reasonable to try to do  
286 this and it's consistent with what we're doing around the United States, it seems we would be  
287 crazy not to do this. To me, you don't fool with the water supply system, and you don't take

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288 chances. That's the way I think we should look at this. You don't play around with it. You do  
289 what is reasonable."

290

291 Jarrod said, "I would agree with that. Obviously we're trying to deliver a safe product, but I also  
292 take Alderman Gjertsen's comments to heart that we're trying to balance fiscal authority with  
293 what we're doing. It's a lot of money – it is. I won't kid anybody that this is a lot of money to  
294 move forward with our water system with what we're trying to do. I'm hopeful that by  
295 expending the money now we're going to get a good product in a year that we're going to have a  
296 solid foundation to move forward with. I'm hopeful. We could probably get the chemical  
297 supplier in to help us try some things and do some things, but I don't think it will be science-  
298 based when we get done. I would be suspect of starting with that avenue."

299

300 Ald. Gjertsen addressed Ald. Bertrand's comments, stating, "We're all going for the same thing:  
301 the very best water we can get. My concern is the same. It's not going to change. Chemicals  
302 are chemicals, and I'm apprehensive. I know what we're trying to get accomplished. We're  
303 trying to coat our pipes and keep it from being a problem. But the Flint, Michigan [situation] is  
304 much different than the problem that we have, and our problem is different than La Crosse's.  
305 There are some things that are the same. Flint, Michigan is much different – no doubt. It's much  
306 different, and I have a pretty good understanding of this stuff. That's lead, and we have very  
307 little lead here."

308

309 Ald. Bertrand said, "To the public, they don't know the difference between Flint, Michigan and  
310 anywhere else. My point is, we have the public to please. I see 'the [DNR] recommends.' It's  
311 the very first statement. ... If word came out that we are not doing something, and it's contrary to  
312 what is recommended to us ... Yes, we don't have a Flint [situation] here. But I think we're  
313 taking a big chance with the public, regardless of what the chemistry looks like."

314

315 Jarrod said, "I think everyone is agreeing with the whole thing. I think we're all in the same  
316 camp. I think we all want to have something done to ensure that we have safe drinking water.  
317 It's just how we get to that point. We can find different avenues, but with this ... This is not an  
318 approval tonight to add orthophosphates to the water system. This is to look at that option and  
319 see if that is the right option. I cannot not see us not adding chlorine to our water system. It  
320 hasn't been mandated as of this point, but there are very few water systems in the State of  
321 Wisconsin that do not add chlorine. With our water system and how big it is and how spread out  
322 it is, we probably would have bad Bac-T samples in our water system over the course of time.  
323 We would be susceptible to that if we didn't add disinfection to our water system."

324

325 Ald. Gjertsen said he agrees with Jarrod, stating, "That's not an option. But I think if we can  
326 look at the options as we go along, I'm all for it. I always want the best we can get, whether it's  
327 street, water, or sewer. I'm just very cautious, the same as Harvey is, for different angles. But  
328 we're aiming for the same spot."

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On voice vote, motion carried, 4-1 (Ald. Gjertsen).

**Item 5 – Review and consideration of professional engineering services for the design of traffic signal upgrade project at 12<sup>th</sup> Avenue South/Sand Lake Road and Main Street**

Jarrold said this project was approved as part of the 2018 Capital Improvements Budget. The project involves upgrading the traffic signals located at the Sand Lake Road/Main Street/12<sup>th</sup> Avenue South intersection. Jarrold said water has been seeping into pole boxes and causing short circuits, noting that the wiring was installed underground in 1982. The original traffic signal also was installed in 1982, and a new controller (a computer located inside the box by the Onalaska Cemetery) was reinstalled in 2003. Jarrold said the project also would involve taking traffic counts to ensure there is accurate data for the timing of the signal. The last time this occurred was in approximately 2011. Jarrold said there also would be an analysis regarding left-turn arrows, noting he has received several requests to install said arrows at Sand Lake Road. Jarrold said, “We have studied this a couple times over the last 20 years and the warrants for a left-turn arrow have not been met, but we would also look at that.” The project also would include a survey and design of the intersection. Jarrold said, “With the design, the existing traffic signal poles would be staying in place. We would be adding new faces, a cabinet, controls inside the cabinet, and vehicle detection. We would be going to a more modern camera system for detecting cars, so we would not have the loops in the ground any more, which we also have problems with.” Jarrold noted that Strand Associates designed the signal located at Theater Road and Midwest Drive in 2015, and he expressed a desire to keep everything consistent between the traffic signals so there is a consistent methodology and construction techniques. Jarrold said, “This would include sending it out for bid and receiving bids, and once we got bids in we would see where we’re at and what we’re at with workload for construction.” Jarrold said staff recommends proceeding with Strand Associates at a cost of \$27,900 to work on the design of the intersection for the traffic signal upgrade.

Motion by Ald. Gjertsen, second by Ald. Bertrand, to approve professional engineering services by Strand Associates for the design of traffic signal upgrade project at 12<sup>th</sup> Avenue South/Sand Lake Road and Main Street at a cost not to exceed \$27,900.

Ald. Bertrand asked Jarrold if the traffic signal at the intersection of 12<sup>th</sup> Avenue South/Sand Lake Road and Main Street has experienced any failures.

Jarrold said most of the failures have occurred during the winter months, noting the most significant issues occur at the southwest corner of 12<sup>th</sup> Avenue South and Main Street. Jarrold said the pole box short-circuits when water enters, noting that staff has had to resort to utilizing a torch to thaw the pole box and perform repairs.

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370 Ald. Bertrand asked if it would be possible to seal the pole box and said there should be a way to  
371 prevent short circuits from occurring.

372

373 Jarrod reminded Ald. Bertrand that the wires are from 1982 and said the wiring harnesses need to  
374 be placed inside the poles at the bases. Jarrod said it likely would be possible to ask the  
375 electrician to perform this task, adding, "But when I look at the controls inside that cabinet and I  
376 look at the intersection itself, from what I've been told by the DOT they're looking at doing  
377 some sort of project in 2020 out on [State Trunk Highway] 157, probably underneath the ramps.  
378 At some point they're going to come in here and probably do some sort of quick fix to Main  
379 Street to get another seven or eight years out of it past the quick fix. I would anticipate that road  
380 not getting reconstructed for probably 12 years yet. I guess when I look at it, if we have to get  
381 12 more years out of the intersection, I don't think it is going to last that long. The physical pole  
382 will, but I don't think the wiring underneath the control cabinet will last."

383

384 Ald. Bertrand said, "As it was originally constructed, even then you had corrosion issues or  
385 water seepage. How has it functioned like it has all these years?"

386

387 Jarrod said, "Two wires with a 29-cent wire nut is how they're fastened. At the time the DOT  
388 used to use a coated wire nut that had sealant that when you twisted it, it would try to seal the  
389 wires. But being that it is over 30 years old, it's just failing."

390

391 Ald. Bertrand noted Jarrod had said the intersection will be reconstructed in another seven to 12  
392 years.

393

394 Jarrod asked Ald. Bertrand if he would wait 12 years for a doctor to perform a needed procedure.

395

396 Ald. Gjertsen said, "The band-aid for that is rerunning the wires, and you don't feel that that is  
397 going to last."

398

399 Jarrod said it would be possible to run the wires, "[but] to try to get the wires to the outer loops,  
400 that's part of the reason we're trying to go with the photo detection." Jarrod noted the outer  
401 loops are 125 feet down and said the wire must be run out through a half-inch conduit in all four  
402 directions. Jarrod said it likely would be necessary to take apart the concrete pavement to install  
403 them new. Jarrod noted new ones were installed in front of St. Paul's Lutheran Church and said,  
404 "Is this one where it would not last 12 years if we got a quote from a local electrician and spent  
405 \$30,000 to get it by? It probably could work. The way I look at that intersection with how much  
406 traffic goes through it and trying to get it to ensure that it works, we're probably going to spend  
407 \$15,000 alone on the cabinet on the new controller. Could we try to limit that by for another 12  
408 years? We could. But like any other computer, it just gets to the point where no one will service  
409 it. ... I'm not saying we could not do a fix-it program to get it by. If I knew the DOT was going  
410 to come in five years and replace that intersection and put a new traffic signal in, I would say

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11

411 limp it by. But I think it's going to be long enough that I think that intersection, for what we do  
412 at that intersection, deserves to get fixed the right way.”

413

414 Ald. Gjertsen asked Jarrod to repeat when he thinks the DOT will perform repairs.

415

416 Jarrod said he anticipates the DOT performing a “small fix” in 2020, telling Ald. Gjertsen he  
417 does not know if the DOT will come all the way up Main Street. Jarrod noted the DOT has a  
418 six-year highway program and said, “It is not in the six-year highway program to get done.  
419 They're not even talking about a long term [solution] like rip it up and fix it. It's going to be 12  
420 years until that roadway gets replaced. I wish it was sooner – not only for the signal light, but we  
421 have a water main under that road that is from the 1940s that you've seen the water main breaks  
422 on. I would love to replace the water main underneath it, but it just isn't in the cards right now.”

423

424 Ald. Bertrand said, “Arguing for it, I would assume that with new controls ... we have more  
425 options in terms of how we control the lights. And as time goes on, with whatever configuration  
426 we come up with there, it can change with traffic patterns.”

427

428 Jarrod told Ald. Bertrand the current controller has methodology within it to control the amount  
429 of time for each leg of the intersection. Jarrod said, “If we would do this and rewire it, we would  
430 run the wire at the time to put in the left-turn arrow even if we don't install it now in case we  
431 would need it in the future.”

432

433 City Administrator Rindfleisch told board members the actual signal upgrades were included in  
434 the 2018 CIB, and he said the request before the board this evening is for engineering services  
435 leading up to reconstruction. City Administrator Rindfleisch said he recommends completing  
436 the professional engineering prior to doing any of the new signals.

437

438 Motion restated:

439

440 To approve professional engineering services by Strand Associates for the design of traffic signal  
441 upgrade project at 12<sup>th</sup> Avenue South/Sand Lake Road and Main Street at a cost not to exceed  
442 \$27,900.

443

444 On voice vote, motion carried.

445

446 **Item 6 – Review and consideration of proposals for tandem axle cab and chassis**

447

448 Jarrod noted that board members' packets include a bid tabulation for the cab and chassis tandem  
449 axle truck and said it is included in the 2018 CIB. Jarrod said the city will be bidding out the  
450 box, plow, and wing. The controls for the salting and plowing system will be bid out separately.  
451 Jarrod staff recommends purchasing a 7400 SBA International from DeBauche Truck & Diesel

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452 in the amount of \$95,312. This includes the base bid (\$92,745), Option “B” (torque upgrade –  
453 1,150 pounds – for \$2,187), and Option “C” (electric heated windshield for \$380).

454

455 Motion by Ald. Bertrand, second by Ald. Gjertsen, to approve the purchase of a 7400 SBA  
456 International tandem axle cab and chassis from DeBauche Truck & Diesel at a cost of \$95,312.

457

458 Ald. Gjertsen inquired about Option “B.”

459

460 Jarrod said Option “B” is an upgrade for the torque, noting that a larger motor is being  
461 purchased. Jarrod said it was listed as an option because staff knew the Western Star 4700 SB,  
462 the model offered by V&H Trucks, likely would come in with a larger truck. Jarrod said, “We  
463 wanted to get that torque option upgrade. Would the base option work? It would. But for years  
464 we’ve been battling trucks that have been underpowered when we’re trying to put all that salt on  
465 them. We’re carrying about 10 tons of salt on them. You can see the trucks keep getting bigger,  
466 which is a good thing because we can carry more material and not come back to the shop so  
467 often to reload. In discussing it with the staff that worked on specifications, we feel it’s worth  
468 the \$2,187 upgrade to get the bigger engine.”

469

470 Ald. Gjertsen inquired about the lifespan of the trucks.

471

472 Jarrod said staff anticipates that the city will get “15 good years” out of them, and then up to 20  
473 years. Jarrod said the 7400 SBA International will replace a 1999 Chevrolet single-axle truck.  
474 Jarrod also noted the city’s next oldest truck is a 2007 model and said staff likely will look into  
475 what the city can get for trade value either in 2019 or 2020 and determine whether or not to  
476 upgrade. Jarrod said, “We buy them for a 20-year lifespan. If you go to our shop and look at our  
477 trucks, they are stainless steel and properly powered. They have the proper gearing. We buy  
478 them to last.”

479

480 On voice vote, motion carried.

481

482 **Item 7 – Review and consideration of purchasing traffic message boards**

483

484 Jarrod said the 2018 Equipment Budget included the purchase of a traffic message board for  
485 relaying information such as water leaks, upcoming construction projects, and special events in  
486 conjunction with the Police Department. Jarrod said he believes the message boards would assist  
487 the traveling public, citing the example of the water leak at 12<sup>th</sup> Avenue South and Sand Lake  
488 Road. Jarrod said a message board could have warned motorists about the lead and informed  
489 them a detour was ahead. Jarrod said staff must place signs in some neighborhoods (Holiday  
490 Heights being an example) informing citizens flushing is occurring. Jarrod said staff was  
491 looking to purchase one through the budget process, noting staff had researched prices online  
492 and discovered that it would be possible to purchase two signs for \$19,000. Jarrod said staff

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13

493 made sure the signs were the correct unit and noted there will be savings on other purchases  
494 within the department (concrete saw, streetlights, tires, paint machine). Jarrod said a sufficient  
495 amount was saved through those purchases that it will be possible to make up the difference in  
496 the budget between the \$19,000 and the \$16,250 budgeted for one unit.

497

498 Motion by Jarrod, second by Ald. Gjertsen, to approve the purchase of two traffic message  
499 boards at a cost of \$19,000.

500

501 On voice vote, motion carried.

502

503 **Item 8 – Review and consideration of 2018-2020 fire hydrant painting**

504

505 Jarrod noted that board members' packets include quotes from Davies Water and Fairway  
506 Painting & Sandblasting, Inc, and he said staff solicited quotes for a three-year period. Jarrod  
507 noted that approximately 150 hydrants are painted yearly, and also that there are approximately  
508 1,100 hydrants in the system. The hydrants are painted approximately once every eight years.  
509 Jarrod said the tendency is to paint the hydrants along the primary route and noted this is a yearly  
510 cost of \$15,750, which is budgeted yearly within the Water Department operating budget.

511

512 Motion by Jarrod, second by Ald. Gjertsen, to approve Davies Water for 2018-2020 fire hydrant  
513 painting at a cost of \$15,750.

514

515 Fred asked Jarrod if Davies Water is the same vendor the city utilized previously.

516

517 Jarrod said Davies Water has been the same vendor the last two or three years. Jarrod noted a  
518 previous vendor had submitted a favorable bid in approximately 2015, but had done substandard  
519 work. Jarrod also told Fred there is sandblasting involved in the process.

520

521 On voice vote, motion carried.

522

523 **Item 9 – Review and consideration of purchasing Engineering Department survey**  
524 **equipment**

525

526 Jarrod told board members their packets include a copy of a quote from Topcon Solutions for a  
527 GPS rover unit to utilize in the Engineering Department's surveying. The Engineering  
528 Department currently has a total station that is robotic. Jarrod noted that Kevin performs  
529 surveying on projects and said that while Kevin may perform these duties by himself, the total  
530 station is only good to about 600 feet away from the unit. In addition, the total station must  
531 maintain line of sight at all times. The total station is disrupted when vehicles go through,  
532 thereby making it necessary to reacclimate the machine to the target. Jarrod told board members  
533 staff is currently working in Holiday Heights and said Kevin is currently working on the design.

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14

534 Jarrod noted there are 21 control points upon which Kevin sets the instruments and said there  
535 would be one control point with the new unit. Kevin then would be able to shoot the entire  
536 neighborhood. Jarrod also noted that State of Wisconsin projects utilize rover units on top of  
537 survey sticks.

538

539 Jarrod said, “With our Engineering Department being a one-man show – basically Kevin doing  
540 the engineering – we don’t have an engineering aide any more to really have an extra person.  
541 This really keeps us working faster. We’re trying to find ways to be more efficient. There is a  
542 lot of work in the Capital Improvements Budget the next couple years. This would really help us  
543 out.”

544

545 Motion by Ald. Gjertsen, second by Ald. Bertrand, to approve the purchase of Engineering  
546 Department survey equipment from Topcon Solutions at a cost of \$23,696.35.

547

548 Jarrod noted this item was included in the 2018 Equipment Budget and told board members the  
549 item had come in under the budgeted amount.

550

551 On voice vote, motion carried.

552

553 **Item 10 – Review and consideration of 2018-2020 sanitary sewer televising**

554

555 Jarrod noted that board members’ packets include two quotes for sanitary sewer televising – one  
556 from Flow-Rite Pipe & Sewer Services, LLC, and one from Ritter & Ritter Incorporated Sewer  
557 Service. Jarrod noted that Flow-Rite Pipe & Sewer Services has performed this duty for the city  
558 in the past and said Flow-Rite is proposing 50 cents per lineal foot. This item is included in the  
559 yearly operating budget. Jarrod said the city is approximately five years into the televising of its  
560 sanitary sewers, adding that about nine miles will be addressed with this each-year allotment.

561 Jarrod noted the city has approximately 100 miles of sewers and said it will take approximately  
562 11 years to complete the televising. Jarrod said televising allowed staff to catch the potholes on  
563 State Trunk Highway 16, which is where the State of Wisconsin had driven into the city’s  
564 concrete storm interceptor pipe. Jarrod said staff knows the location of all the laterals, adding he  
565 hopes the time will come when staff will have the ability to select a location in the sanitary sewer  
566 on the Inframap System and call up the video.

567

568 Motion by Ald. Gjertsen, second by Ald. Bertrand, to approve Flow-Rite Pipe & Sewer Services,  
569 LLC for 2018-2020 sanitary sewer televising at a cost of \$24,500 per year.

570

571 On voice vote, motion carried.

572

573 **Item 11 – Review and consideration of 2018 orthophotography flight**

574

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15

575 Jarrod said board members' packets include a proposal for an orthophotography flight through  
576 the city. The 3-inch orthophotography option would be utilized, meaning there would be 3-inch  
577 resolution. Jarrod referred to Ald. Binash's question during public input pertaining to a drone  
578 and said, "As much as I wish the drone would fly over and take all my pictures for me, which it  
579 would, what this does is it is actually surveyed in. If you've ever seen the white crosses on the  
580 road in certain spots, they fly over, take the pictures, readjust the photos so they all match and  
581 they all go seamlessly together and they are all to scale." Jarrod said Kevin utilizes the photos in  
582 the city's paving projects, adding the photos are utilized as the base information for projects  
583 where survey grade accuracy is not necessary. Jarrod said having aerial photos also means he  
584 can utilize the GIS System to measure distances. Jarrod said he believes the drone the city is  
585 considering purchasing will be beneficial for projects so that real-time data can be provided.

586

587 Jarrod said, "It is also a historical planning document because it takes a snapshot of the city at  
588 one instance in time. With that, we can go back and see the changes in areas over the course of  
589 many years. There is hardly a day that I don't have the air photo up on my computer where  
590 someone is calling me and asking questions. For instance, if someone calls asking about their  
591 house at 14<sup>th</sup> Avenue North, one of the first things I try to do is make sure I have enough time on  
592 the phone with them that I can get the aerial photo up and see where they're talking about. I  
593 think what we are using for a three-year period this is money well-spent for the Engineering  
594 Department and the Planning Department, and just in general for how much we use it."

595

596 Motion by Ald. Gjertsen, second by Ald. Bertrand, to approve Ayres Associates for the 2018  
597 orthophotography flight at a cost of \$21,400.

598

599 Fred reminded board members that many of the projects still are contingent upon obtaining  
600 funding.

601

602 Jarrod noted that this project was bonded in 2017 and said photographs may only be taken in the  
603 spring. Jarrod noted that a contract with Ayres Associates must be in place by February 28 as  
604 Ayres Associates will perform the flight either in March or April.

605

606 On voice vote, motion carried.

607

608 **Item 12 – Review and consideration of purchasing water valve operator/exerciser**

609

610 Jarrod said the water valve operator/exerciser is mounted in the rear of a flatbed pickup truck.  
611 Jarrod said this unit is "very needed" as the city must exercise all the valves once every five  
612 years, per DNR standards. Jarrod noted the current unit is 11 years old and said it will be sold at  
613 auction. Jarrod said staff will retain the current data logger and noted part of the reason the  
614 current valve operator/exerciser is being replaced is there are issues with the wiring inside the  
615 unit. Jarrod said staff wishes to replace the current Wachs unit with another Wachs unit, adding

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16

616 that the item was budgeted for \$26,000 and the cost staff is proposing is \$23,100.

617

618 Motion by Ald. Bertrand, second by Jarrod, to approve the purchase of a Wachs water valve  
619 operator/exerciser at a cost of \$23,100.

620

621 On voice vote, motion carried.

622

623 **Item 13 – Review and consideration of replacing current Public Works Department two-**  
624 **way analog radio equipment with digital equipment**

625

626 Jarrod said board members' packets include two quotes for the replacement of the current two-  
627 way analog radio equipment – one from Brandon Communications/P&H Services, and one from  
628 Baycom, Inc. This would replace the handheld units and the units within the vehicles. Jarrod  
629 said this would not replace all the units within the vehicles as there currently are seven or eight  
630 for which digital equipment has been purchased. Jarrod said there is a federal mandate  
631 forthcoming requiring that the city utilize the digital radio bandwidth. Jarrod noted there only  
632 are a couple of base units within the Public Works Facility and they are the only radios that work  
633 within the building. Jarrod said the handheld units do not work for employees who are working  
634 at a desk. Jarrod said the bid includes a new repeater that would be placed on top of the bluff,  
635 adding that the repeater located on top of the Well Street reservoir would be replaced. Jarrod  
636 noted the repeater provided increased signal strength in the coulees and said the new repeater  
637 would ensure that there would be service at all spots within the city. Jarrod noted that \$28,000  
638 was budgeted in the 2018 Equipment Budget and said staff is proposing that Brandon  
639 Communications/P&H Services install the radios at a cost of \$25,199.85.

640

641 Motion by Ald. Bertrand, second by Ald. Gjertsen, to approve Brandon Communications/P&H  
642 Services for the replacement of current Public Works Department two-way analog radio  
643 equipment with digital equipment at a cost of \$25,199.85.

644

645 On voice vote, motion carried.

646

647 **Item 14 – Pay Estimates: Strand Associates, Wisconsin Department of Transportation, and**  
648 **any other contractor/developer**

649

650

**BOARD OF PUBLIC WORKS  
MONTHLY ESTIMATES**

651

652

653

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654

655

656

<b>Original Contract</b>	<b>Change</b>	<b>Paid to</b>	<b>Due this</b>
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<u>Contractor</u>	<u>Amount</u>	<u>Orders</u>	<u>Date</u>	<u>Estimate</u>
<b>1. STRAND ASSOCIATES</b>				
S. Kinney Coulee Lift Station Construction				
Estimate #11	\$ 28,300.00	\$ -	\$ 14,407.19	\$ 1,157.54
<b>2. STRAND ASSOCIATES</b>				
General Engineering Design				
Estimate #1	\$ 5,000.00	\$ -	\$ -	\$ 411.37
<b>3. STATE OF WI – DOT</b>				
Riders Club Road Design – State Plan Review (5991-02-56)				
Estimate #9	\$ 60,000.00	\$ -	\$ 21,542.17	\$ 1,313.37
<b>4. STATE OF WI – DOT</b>				
PH/Braund Street Design – State Plan Review (5991-02-53)				
Estimate #9	\$ 50,000.00	\$ -	\$ 20,117.33	\$ 1,288.64

Motion by Fred, second by Ald. Bertrand, to approve the four pay estimates dated February 6, 2018.

On voice vote, motion carried.

**Adjournment**

Motion by Ald. Gjertsen, second by Ald. Bertrand, to adjourn at 7:41 p.m.

On voice vote, motion carried.

Recorded by:

Kirk Bey