



Public Works Department City of Bellingham

Broadband Advisory Workgroup

Meeting Notes

Tuesday, May 3, 2022

6:00pm – 7:45PM

Zoom

WG Members in attendance: Spencer Moore Michelle Kopcha
Steve Spitzer Kristopher Keillor
RB Tewksbury
Milissa Miller

Ex Officio Members in attendance: Terry Davis
David Namura
Gina Stark
Atul Deshmane

WG Members excused: Linda Fels

Guest Presenters: Jory Wolf, Magellan Advisors LLC
Greg Laudeman, Magellan Advisors LLC

City Staff and Facilitator in attendance: David Roberts, Facilitator
Eric Johnston, Public Works Director
Don Burdick, Information Technology, GIS Services Administrator
Rush Duncan, Public Works Webinar Support

1. Welcome, Introductions,
Agenda Review, Approval of
Notes

David Roberts opened the meeting and asked for approval of the notes from the April meeting. He will send out consolidated feedback on the draft survey results from four members to the group.

Eric Johnston noted Governor Inslee rescinded his public order to have meetings remotely effective June 1. The Council will discuss when to return to in-person meetings on May 9th. This group has indicated it is interested in remotely meeting going forward in part because we are almost finished. It is expected that regular boards and commissions will start meeting in person. Eric will report back by 5/13 (if possible) with direction from City Council.

2. Impressions from City Council
Presentation

Spencer Moore gave a presentation to Public Works Committee of the City Council on April 25th and did an excellent job. Spencer thanked everyone and said it was a team effort.

Engineering

104 W. Magnolia Street, Suite 109
Bellingham, WA 98225
Phone: (360) 778-7900
Fax: (360) 778-7901
TTY: (360) 778-8382
Email: pw@cob.org

Natural Resources

Physical: 2200 Nevada Street
Mailing: 2221 Pacific Street
Bellingham, WA 98229
Phone: (360) 778-7800
Fax: (360) 778-7801
Email: pw@cob.org

Operations

2221 Pacific Street
Bellingham, WA 98229
Phone: (360) 778-7700
Fax: (360) 778-7701
Email: pw@cob.org

Milissa Miller noted that Michael Lilliquist reported to the full Council (after Spencer's report) that the Workgroup was recommending the state standard of 150/150. This was not correct. We need to identify that our standard is different from the state standard to be clear to the public.

Michelle Kopcha noted Spencer was clear on timeline for wrapping up the Workgroup effort in his presentation. In the council meeting, Lisa Anderson noted the 2-year budget is being developed this fall and she didn't want to have to write amendments later. She also noted that Michael Lilliquist commented on the range of options being considered from doing nothing to doing everything, and identifying what is best for the community, and what the role of the City should be vs the role of private sector, port, state. What will be the City's contribution? These questions need to be answered in the Workgroup report.

Eric Johnston noted the budget question is important. The staff recommendation needs to be to the Mayor's office by June 15. The Mayor's Recommended Budget goes to council on September 30th, and final decisions are made by the Council at the end of December. Amendments are not that big a deal, and we can do them if we have to, but we want to avoid major new initiatives, new divisions, new programs, new staff, would preferably be avoided. Eric suggested the Workgroup complete its work in June or July. The Workgroup is tasked with recommending policy and doesn't need to worry about how to build something or how to fund it. With policy comes additional action and additional work.

3. Magellan Advisors summary
their draft report and discussion
of recommendations

Magellan's summary report did not get sent out to everyone ahead of the meeting. However, it is now posted on the City's website. Workgroup members are encouraged to read the report, listen to today's presentation, and send your comments to David Roberts.

Greg Laudeman (GL): presented an overview of the findings and recommendations in the Magellan report. Bellingham is considered a large, small city. Education level as a demographic provides important context to the study. The content has been edited down. Price was the biggest issue and customer service behind that. City of Bellingham has a strong asset base, this is a key item about the study.

The bulk of the meeting after the overview was spent answering questions.

Question: A lot of your examples are from Google, did anyone go out and make sure those are real? Was there a count? Did you observe this?

GL: these are examples. Magellan has data from the City. There was no on-the-ground proofing, Magellan will recommend that as a next step. They highlight some less appreciated assets including buildings, and traffic signal control cabinets. Greg spoke about fiber based broadband networks and core networks, and backbones. He noted that Magellan did not see any underserved areas and provide some analysis of the existing assets. They recommend re-installing high conduit fiber for backbone.

GL spoke of a variety of business models and operational opportunities that exist with the City's current network. There are easily 150 community anchor sites within a drop distance of that backbone, there is a lot of potential impact from this infrastructure. He presented a worst-case scenario for building fiber to the home: all services underground throughout the City including 29 power hubs, 421 passive hubs, creating 678.1 route miles of fiber serving nearly 43K customers and including 4.2K business. The estimated cost for this system would be \$400.1 M to build. GL showed the revenue projection graph that

indicated the repayment on the debt service would be very long and not make sense.

Question: What is a revenue factor? GL: a key consideration, a lever that controls how much revenue potential you have. With lit services, the more customers the more revenue in concept, but also how long the paths are, pricing by distance and the number of paths per customer. A bank might have 12 branches with paths to each and all of those factors influence the revenue.

Question: On page 38 you say it would cost \$12.4M to build the backbone from scratch. The synopsis at the end says \$400M. Does that include the 12M?
GL: Yes

Question: Have you estimated how many years it would take to build this system and is there a cost escalator based on the number of years it would take? GL: Yes. For this model we assume for the first 3 years there is very little revenue.

Question: Materials are going up every year by a lot. GL: We really ran our team through the paces on this design and the costing. There is 20% contingency built in. We feel these are as close as you are going to get. The estimates are drawn on current data and rates, not even 3-5 years old. It costs more on the West Coast than anywhere else in the US. Pricing is aggressive, we made some assumptions on each tier.

Comment: The enhanced tier is getting an additional discount. GL: We have a range of take rates. The model is not economically viable. The scale of the investment is near monumental with a total investment between \$400-460M for retail broadband. The debt service alone is about \$590M. About 24 years in the marginal rate changes from negative to positive.

GL noted there were more economic ways to build a network including using value engineering. The bottom line is that a full retail business model does not make sense. What could make sense is a wholesale enterprise model with the City acting as a catalyst. The city has great assets, but many were deployed on a project-by-project ad hoc basis to address particular needs. You need to have a manageable system that requires certain specs. City could be a catalyst for other companies to invest in this infrastructure. It comes down to "what's adequate? What is adequate for Bellingham? Do you want more speeds for more people? Do you want to spur economic development that is focused on using that bandwidth? Other quality of life impacts from improved connectivity? What does the community value? What are the priorities?"

Question: I want to bring it back to the motivation. On page 35, what is the intent of what you are trying to say here? At face value it seems dismissive of affordability and equitability. GL: we are looking at return on investment. Impact and results are usual about financial impact. When you weight into more purpose-driven initiatives, especially with technology, it's important to understand both how and why you are accomplishing your ends, and have metrics attached to those. What are we trying to accomplish? Improving municipal services, improving efficiency, healthcare. This is not technology for technology's sake. There are municipal priorities, if these do not help the City them achieve them, why are we making the investment?

Question: Why is there only one financial scenario? Why present cost reduction tactics without additional financial scenarios to assist us in making a more intelligent decision? GL: There are limits to what we can predict with the information available. Bellingham has extensive network assets and some could be used in actual network deployment. We assume conduit can be reused, so we eliminated construction costs on 50% of the backbone. Is that conduit

viable? We don't know but could go into a more in-depth analysis. But it would be more speculation. The key is "what do we want to accomplish" and use that for a more detailed assessment.

Comment: No matter what we do, the cash flow will be significantly negative throughout a 30-year history.

Question: In your spreadsheet analysis, do you have an option for 30% underground 70% aerial and change the numbers? GL: Yes, it could be done, but would need more data on pole attachment dates and make ready costs.

Question: If we provided those metrics, would you give us another cost analysis? Jory Wolf (JW): We need to know the condition of the poles. When was the last audit? Someone who knows the condition of the poles will have to weigh in on additional metrics to make changes in the spreadsheet work. GL: We would also need to know where? The entire city? The scale of the investment is key. Investing in one area, doing it incrementally, will allow revenue from current customers to be used for future customers.

Question: Could you give us another proposal if we provided data for something other than 100% underground? GL: We could, but the extra work would be out of scope, and it would need to be covered.

Eric Johnston: Noted these are good questions and he check the requests against Magellan's scope of work. These kinds of questions regarding the scope of work should be sent to David Roberts.

Comment: The Anacortes model of gradual build out is key. Anything else is running before we are walking. The debt service alone was higher than construction cost.

Question: Regarding aerial vs underground, we can get access to the raw spreadsheet? Perhaps we could complete the analysis ourselves.

Question: Have you interviewed any of the ISPs? Where did you get your information from? GL: Reaching out to providers is a recommended next step. The scope of work did not require that input.

Question: Can you note that you made this report without consulting with the providers? There are large assumptions here.

David Roberts suggested the report include a glossary for everyone who may not know the acronyms and terms.

Eric Johnston requested that the Workgroup send their comments to David Roberts by May 22nd. He will compile and present them to Magellan for consideration in the final draft.

Question: Weren't we going to be able to study the report in May and come back in June with Magellan. Eric Johnston: Yes, we are hoping to have them so we can have answers in the June meeting.

Question: Is this report specific to Bellingham? GL: Yes. But the network architecture is based on standardized best practices. Those practices the basis of our costing estimating. Additional information is specific to Bellingham.

David Roberts introduced the meeting summary that was drafted by a subgroup comprised of Steve Spitzer, Michelle Kopcha and Terry Davis. The subgroup reviewed all of the meeting minutes and capturing the most salient points to tell the story of the Workgroup's activities. He noted the subgroup highlighted several meetings they felt were very important to the overall learning and

4. Review Draft Meeting Summary Report

discussion. David also pointed out that the summaries for the Workgroup's meetings will be added later.

5. Agenda bill preparation

Eric Johnston discussed presenting the Workgroup findings to the City Council. An agenda bill is drafted for City Council with a report attached. In this case it will be the report from the Broadband Group, which includes a background on the Workgroup and its recommendations, and attachments such as the meeting summary report and the Magellan report. It will also include a resolution which contains the Workgroup's recommended actions. An outline for the agenda bill and associated documents was provided in Workgroup member's meeting packet.

Eric will prepare the Agenda Bill. He suggested the Workgroup get started on report by preparing the "whereas" statements that will be included in the resolution. These should point to needed actions based on your Workgroup recommendations. You should establish a subgroup to start prepare the resolution, the report, the appendices, and start fleshing these out over the next 2-3 months and send back to the City council.

6. Identify subgroups to develop agenda bill and prepare workgroup report

David Roberts suggested the Workgroup establish two subgroups, one to work on the whereas and the recommendations. Question: Is this something that the ex-officios can help us with? Eric: Yes. Hopefully members will all agree with the report, even if the ex-officios don't support it. He noted that one of the attachments to the report could be a white paper including the industry input.

Comment: There is nothing in the report on improving adoption. That may be a key on connecting and focusing on underserved communities. The Affordable Connection Program might be a next step to engage. It is a big part of addressing the equity concerns.

Comment: Access, as in availability, is universal. The question is adoption.

David Roberts asked for volunteers to assist with drafting the Workgroup report. The following members and ex-officios stepped forward: Milissa Miller, Steve Spitzer, RB Tewksbury, Gina Stark, Terry Davis & Atul Deshmane. The subgroup will begin drafting the report and bring back to the whole group for review.

On June 7th the bulk of the meeting will be devoted to final comments on the Magellan report. We may have time to look at whatever has been drafted by the subgroup at that meeting as well.

Comment: Everyone should review the Magellan scope of work. In my opinion, Magellan came up short.

7. Plan for June 7th Meeting

Eric Johnston reminded everyone he had been requested to invite Pogozone (ISP) to speak to the Workgroup. Members indicated they were still interested in a presentation, so he will get that set up.

Meeting adjourned 8:00 PM.

Next meeting scheduled for Tuesday, June 7th, 2022 at 6:00 PM via Zoom