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Rural Internet Access Committee

October 6, 2016 - Thursday

7:00 p.m. to 8:30 p.m.

Wildwood City Hall - 16860 Main Street, Wildwood, MO. 63040

(Council Chambers - 1st Floor)

"**PLANNING TOMORROW TODAY**"

Re: Status of Bays ET and Wisper ISP's Coverage and Service to Wildwood

1. Welcome By Chair Kallaus And Introductions/Roll Call Of Committee Members

   Documents:

   I.A. DRAFT JUNE 22, 2016 MINUTES.PDF

2. Overview Of Tonight's Agenda Items

   Documents:

   II. UPDATE ON CURRENT RURAL INTERNET PROVIDERS.PDF

3. Updates And Discussion Of Coverage And Service Rollouts To Rural Areas By Bays ET And Wisper ISP

   3.I. St. Louis County Emergency Communication Commission Facilities

   3.II. Update On Bays ET's Network – South Half Of The City

   Documents:

III.B. BAYS FEEDBACK FROM SUMMIT VIEW PLACE 9-30-16.PDF

3.II.i. Proposal From Bays ET For Four (4) Repeater Sites

3.III. Update On Wisper ISP's Network – North Half Of The City

3.IV. Other Options For Expanded And Improved Service

4. Other Items For Consideration

5. Public Comments

6. Summation Of Meeting And Concluding Remarks By Chair Kallaus

Documents:

VI. NOTES FROM DEPARTMENT MEETING WITH RICK KALLAUS 9-22-16.PDF

7. Adjournment By Chair Kallaus

If you would like to submit a comment regarding an item on this meeting agenda, please visit the Form Center.

Note: The Rural Internet Access Committee (RIAC) will discuss these matters and items listed above and any such other considerations as may be presented at the meeting and determined to be appropriate for presentation at that time.

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Rural Internet Access Committee

Minutes from the Meeting of Wednesday, June 22, 2016

I. Welcome by Chair Kallaus and Roll Call of Committee Members

The meeting was called to order by Chair Kallaus at 7:00 p.m. The following individuals were in attendance:

Committee Members:
Rick Kallaus

Council Member Liaisons:
Greg Alexander and Larry McGowen

City Staff:
Director of Planning and Parks Joe Vujnich and Assistant Director of Planning and Parks Kathy Arnett.

Wireless Providers:
Chris Bay – Bays ET; Malinda Heuring - Wisper ISP; and Caleb Marsh - Wisper ISP

II. Overview of Tonight's Agenda Items

Chair Kallaus reviewed the Committee's agenda for tonight's meeting.

III. Updates and Discussion of Coverage and Service Rollouts to Rural Areas by **Bays ET** and **Wisper ISP**

Director of Planning and Parks Vujnich presented a map showing the existing tower installations completed by the City, as well as two (2) new structures under discussion for co-location, owned by St. Louis County. He discussed the three (3) newest poles, installed this year, in the southern portion of the City. An additional pole has been approved in the northern portion of the City, but has yet to be installed due to neighbor concerns with the lighting and striping required by the Federal Aviation Administration (FAA).

Director Vujnich then provided more detail on the St. Louis County towers, noting the St. Louis County Emergency Commission recently approved the City's colocation on these towers. The first tower, located in Babler State Park, is two hundred (200) feet in height and the second tower, located on St. Louis Community College property, is two hundred

fifty (250) feet in height. The equipment for the City's network would be located around the one hundred forty (140) to one hundred fifty (150) foot height on both towers. He also noted that the first reading of the agreement with St. Louis County is on the City Council agenda for next week.

a. Update on Bays ET's Network – South Half of the City

Chris Bay, with Bays ET Wireless, provided a handout (see attached) which outlines his company's complete work, its work-in-progress, and the short and long-term plans it has established. He also provided a map identifying sixty-three (63) current customer leads it is pursuing.

He then noted its highest priority is in the southern portion of the Fox Creek Road Area. He noted the installation of two (2), forty (40) foot poles, to be used as repeaters, will fill this need. Bays has made significant equipment upgrades over the last couple of months and customer feedback has been positive, noting improved reliability and speeds.

In addition to the repeater poles in the Fox Creek Area, Mr. Bay noted the need for two (2) additional small poles for repeaters, further north and east within its network, to provide additional service to that area. The specific locations of all four (4) of the smaller towers will be provided to the City.

Finally, Mr. Bay noted the current Wildwood customer count is two hundred ninety-seven (297). With the additional small towers, and colocation on the large St. Louis County tower, some additional homesites will now have coverage, but the service experience for existing customers will be greatly expanded.

b. Update on Wisper ISP's Network – North Half of the City

Malinda Heuring, with Wisper ISP, noted it currently has one hundred seven (107) customers in Wildwood, but have been struggling to provide service to additional homes, due to topography. She noted the colocation on the tower in Babler State Park would allow them to fill in pockets without service, increase availability to new areas, and improve backhaul. Additionally, St. Louis County is currently reviewing the engineering specifications for the colocation.

Ms. Heuring then noted the tower equipment is an expensive investment and requested the City assist with purchase of it. Director Vujnich noted the City is waiting on performance numbers from Wisper ISP, before committing to funding of equipment. Ms. Heuring noted without the new equipment, the system can't be tested and, without the City's assistance, Wisper will move this deployment lower on its list of priorities.

c. Other Items of Interest

Discussion by the Committee included a recommendation for the following:

- The City should proceed with the colocation agreements with St. Louis County;
- The City should fund the installation of the smaller pole locations for Bays ET; and
- The City should assist with funding the tower equipment for Wisper ISP, only after the equipment has been installed and performance proven. This performance should be evaluated on some type of performance metric, i.e. adequate service provided to eighty percent (80%) of the projected sixty (60) households, etc. The Committee requested that Wisper ISP provide the number of projected households to be served by this colocation, as well as the projected level of service (plans offered).

IV. Other Items for Consideration

None

V. Public Comments

Thomas Jones, Homestead Estates Subdivision, questioned the speeds that would be provided by Wisper ISP, if the colocation is successful, since his current maximum speed is an eight (8) megabyte download. Ms. Heuring noted the speeds should initially go up to a ten (10) megabyte download speed, then once the firmware can be upgraded, the speeds could increase to twenty (20) megabytes.

Tom Vanbiljon, Woodland Meadows Subdivision, requested the timeframe on the availability of service to his subdivision. Mr. Bay noted he hoped service could be deployed to some of the homes in the subdivision before the end of this year.

Sharon Williams, Woodland Meadows Subdivision, noted she frustrated because her home is at a lower elevation within the subdivision and has been unable to receive service. Mr. Bay noted an additional one (1) to two (2) poles would be needed to reach all of the homes in the subdivision and, at this time, he is unsure precisely what the coverage would be.

Debbie Trunko, Summit View Place Subdivision, requested information on the new repeater poles and if they would assist in providing her, and her neighbors, with better service. Mr. Bay noted the proposed repeater towers would assist with the service in that area.

VI. Summation of Meeting and Concluding Remarks by Chair Kallaus

Chair Kallaus noted additional citizen members needed to be appointed to fill current vacancies on the Committee. The next meeting will be a few months away to update everyone on the progress of the projects discussed this evening.

VII. Adjournment by Chair Kallaus

There being no further items, the meeting was adjourned by Chair Kallaus at 8:20 p.m.

Network upgrade road map – 63069 – Customer Access June 2016

Sites planned:

63069.ATC-Gray-summit (Pending)

- 63069.melrose (complete)
  - +++Add cambium 450i 900 for woodland hills+++ (pending)
- 63069.hawksrest (complete)
  - 63069.small-hawkrest (complete)
  - 63069.whiskey-creek (complete)
  - 63069.tamara-trail (completed)
- 63069.fox-creek (stage 1 complete, pending 2 and 3)
  - 63069.vixon (pending)
- 63069.deer-hallow (completed)
  - 63069.vixon2 (pending)
  - 63069.stoval completed)
- 63069.fox-mountain (pending)
- 63069.mystic-valley (pending)
- 63069.henken (complete)

63069.south-pacific (complete)

63069.west-pacific (complete)

63069.east-pacific (complete)

63069.allenton-hemmer (in progress, stages 1 & 2 complete, 3 pending)

63069.allenton pole New install (complete)

63069.stones throw new install (complete)

63069.east-melrose new install (complete)

Bays-ET High-Speed
517 W Osage
Pacific, MO 63069

PHONE (636) 334-9353
E-MAIL sales@bays-et.com
WEB SITE http://www.bays-et.com

Work overview

63069.ATC-gray-summit

Core:

PTP to 63069.south-pacific (complete)
PTP to 63089.ATC-west-boles (complete)

Customer edge: replace all UBNT edge access gear with cambium (pending)
Wimax access, retire (inprogess)

Wildwood PTP links: replace all UBNT links:
1: combine poles to 2 poles per point of access (complete)
2: install all new cambium links, (in-progress) 3 of 10 complete

Future, 6 to 12 mths: add major PTP to stl county EMS tower (no hard date), off load hencken and east Melrose poles.

Expand cambium access bandwidth (pending removal of all UBNT edge access)

Review network access capacity, possible increases to speed offerings.

Design and begin small pole implementations and or technology additions to reach un-served wildwood residents

Replace all repeaters with cambium

Add tower ATC Apke
Add tower BW Nike Missile

Future over 12-18 mths:

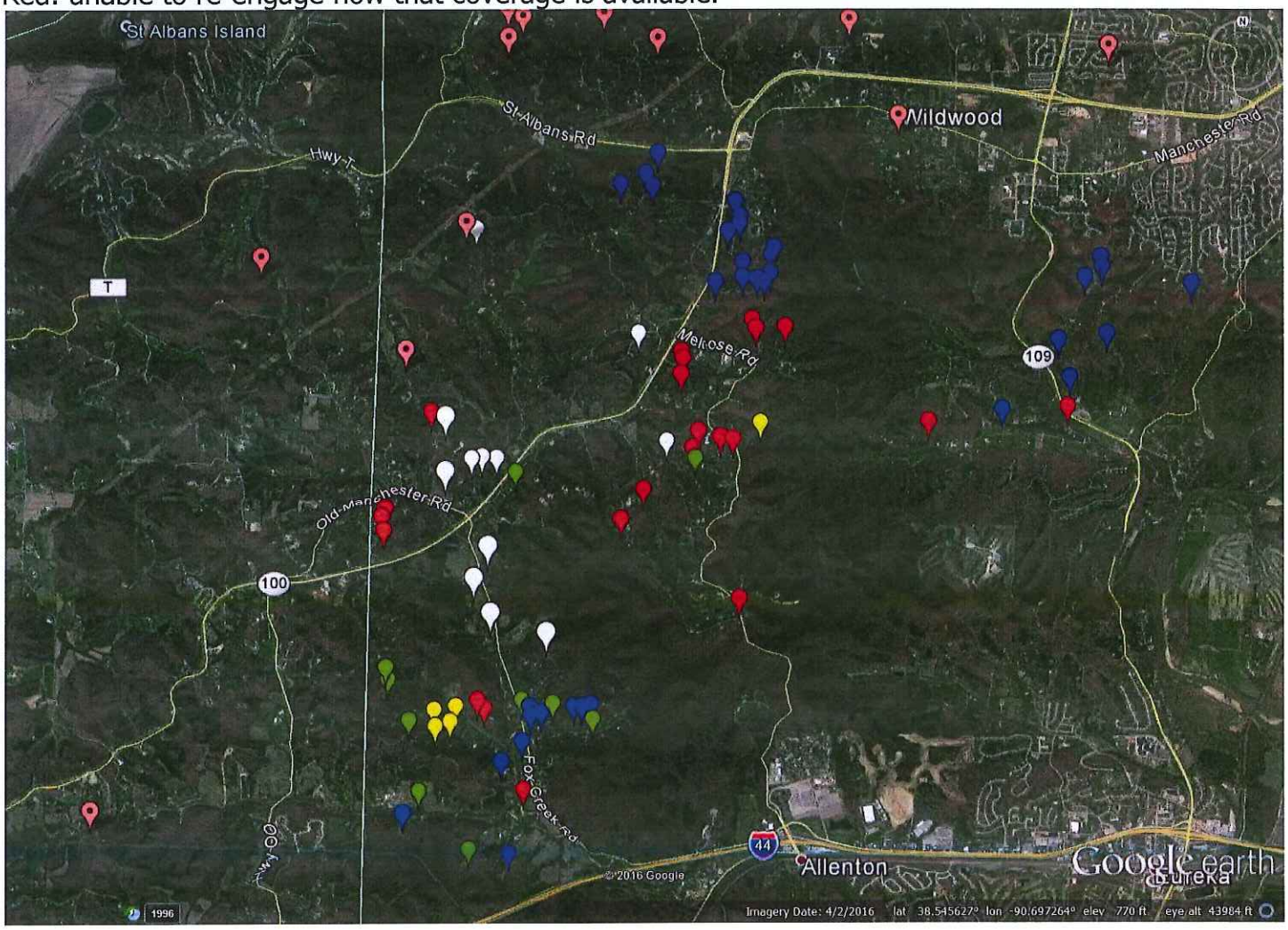
All existing network expansion, upgrades and modifications complete 63069

Introduce new services.

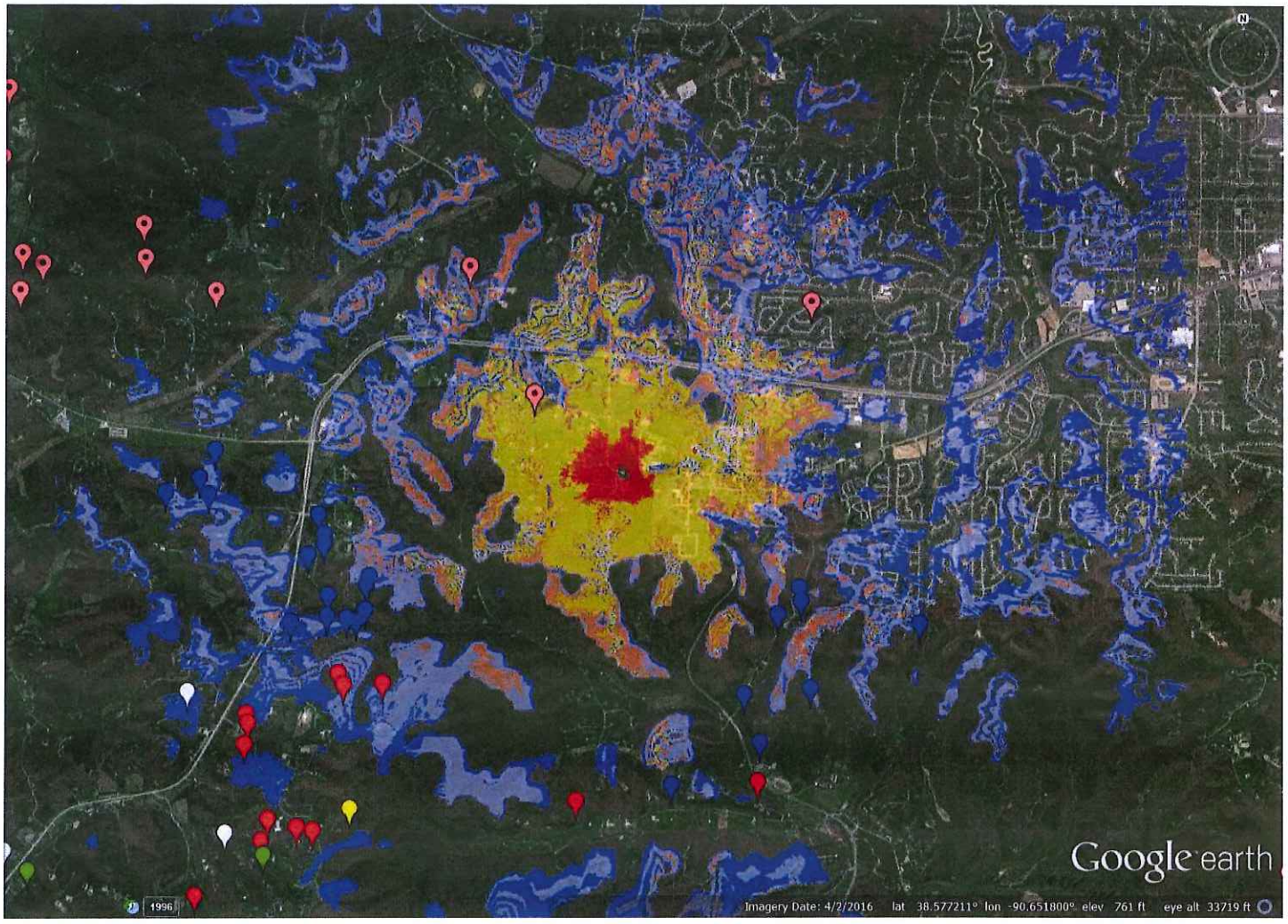
Notes:
Wildwood customers served:

total pole customers: 233
total free: 14
ATC or other towers: 50
Total serviced: 297

Map of pending leads:
White: confirmed gone to ATT or other provider
Blue: special action needed to serve
Green: expected to connect after Cambium conversion
Yellow: special install needs
Red: unable to re-engage now that coverage is available.



Coverage from college tower at 155'



LTE from Israel:

Project has been abandoned, performance was substantial less than expected. Could not maintain performance at lower RSSI as required. FCC pulled certification of CPE equipment.

Cambium 450i will be used in its place, forecast penetration isn't comparable, but worth equipment investment. Cambium operates as promised and delivers as expected.

Wildwood, MO, Non Line Of Sight

25 November 2014

Wisper is always looking for the best solution to provide service to our customers. The challenges of providing Internet service in Wildwood are known. Wisper currently provides service to about 100 customers; however, we are aware of more than 100 customers still needing high-speed Internet service.

There are several ways to help close the gap on the 100+ customers who still need service--repeaters, new wireless gear, the counties tower, and fiber. Each option has its own benefits and drawbacks and realistic timeframe. Sometimes the best solution is not chosen due to the length of time or cost needed to deploy. Wisper's driving force in our decisions has always been how do we get the most people the most reliable service the soonest. It does no good to wait four years for the best solution.

With the delays in gaining access to the new tower in Babbler Forest State park and the loss of the Wild Horse Creek pole location, Wisper has been limited in its options to provide service to a large number of the residents who still need service. Wisper has been testing a new non line of sight solution that we feel will provide service to about 60 of the approximately 100 residents who have contacted us that still need service. This equipment is significantly more expensive then our line of sight equipment, however it will allow us to provide service to the residents we cannot with our line of sight service, taking everyone one step closers to providing everyone with a high-speed Internet option.

Instead of funding the Wild Horse Creek pole install and several small repeaters, Wisper is requesting the city help fund the purchase of the new non line of sight equipment. Wisper would start by deploying the equipment on two poles, Grand Meridien and Reiger Road, helping about 60-70 residents gain access to reliable high-speed Internet. The cost of the equipment is about $28,000 total for the two poles and $16,000 for the equipment needed in the customers' homes. Wisper is prepared to install the equipment before the end of the year, weather permitting.

Wisper understands the City has already gone above and beyond helping us provide service to the people that live and work in Wildwood. With the continued support from the City of Wildwood, Wisper is excited to move one step closer to providing 100% of the residents of Wildwood service.

3680 Lebanon Ave. #101
Belleville, IL 62221
www.WisperISP.com
Phone: (800) 765-7772 Fax: (866) 282-3580

WILDWOOD®

October 6, 2016

MEMORANDUM

To: Rural Internet Access Committee Members

From: Department of Planning and Parks

Re: **Update on Current Rural Internet Providers**

Need for RIAC ♦♦♦

Since its inception in 2007, the Rural Internet Access Committee (RIAC) has attempted to provide internet service to the unserved and underserved areas of Wildwood. It is important to understand the differences in these types of areas. The Committee has always defined 'unserved' areas as those portions of the City where the only options for internet are limited to dial-up or a cellular provider, with escalating payment plans and data limits. The definition of 'underserved' areas includes those locations where options are the same as unserved, but also include satellite or AT&T DSL, both of which are known for poor reliability, high cost, and data latency. The Committee has made progress in serving a great portion of its low-density areas since its inception. The steps to this progress are outlined below.

Provider Selection ♦♦♦

Since the formation of the RIAC in December 2007, a large number of providers have been contacted on multiple occasions in its search for internet solutions for the rural areas of Wildwood. This list of providers includes:

a. AT&T
b. AT&T U-Verse
c. Charter Communications
d. Verizon
e. AT&T Wireless
f. Sprint
g. Cricket
h. T-Mobile
i. Nextel
j. Hughes Net
k. Google (fiber project)
l. St. Louis County – current E-911 Commission towers
m. State of Missouri
n. U.S. Government – Broadband Technologies Opportunities Program Grant
o. Brown Dog
p. Pulse Broadband (fiber-to-the-home)
q. Buzz Broadband
r. Network 1 Communications/Hi-Beam
s. Access US
t. Moonblink
u. C-2 Communications
v. St. Louis Broadband
w. Metronet
x. Socket
y. Ameren Missouri
z. Others

The Department would also note that many other contacts were made as part of several Requests for Proposals (RFP), Requests for Qualifications (RFQ), and Requests for Information (RFI) that were authorized by the Committee and sent to companies in hopes of receiving a response. In the end, other than Charter Communications and Pulse Broadband's short-lived negotiations with the City, only Bays ET and Wisper ISP have attempted to address this issue with actual investments and services.

Current Providers ♦♦♦

The City currently has two (2) companies providing high-speed, no data limit, internet service to its low-density areas. Both of these providers reimburse the City $18.00 per household, per year, on their systems supported by City-owned poles. The City has installed fifteen (15) poles to support this network and a map of these locations is attached to this memorandum. These providers, as well as their current rates, are listed below:

Bays-ET (Provider in the South Area of the City) – *currently serving 297 Wildwood customers*

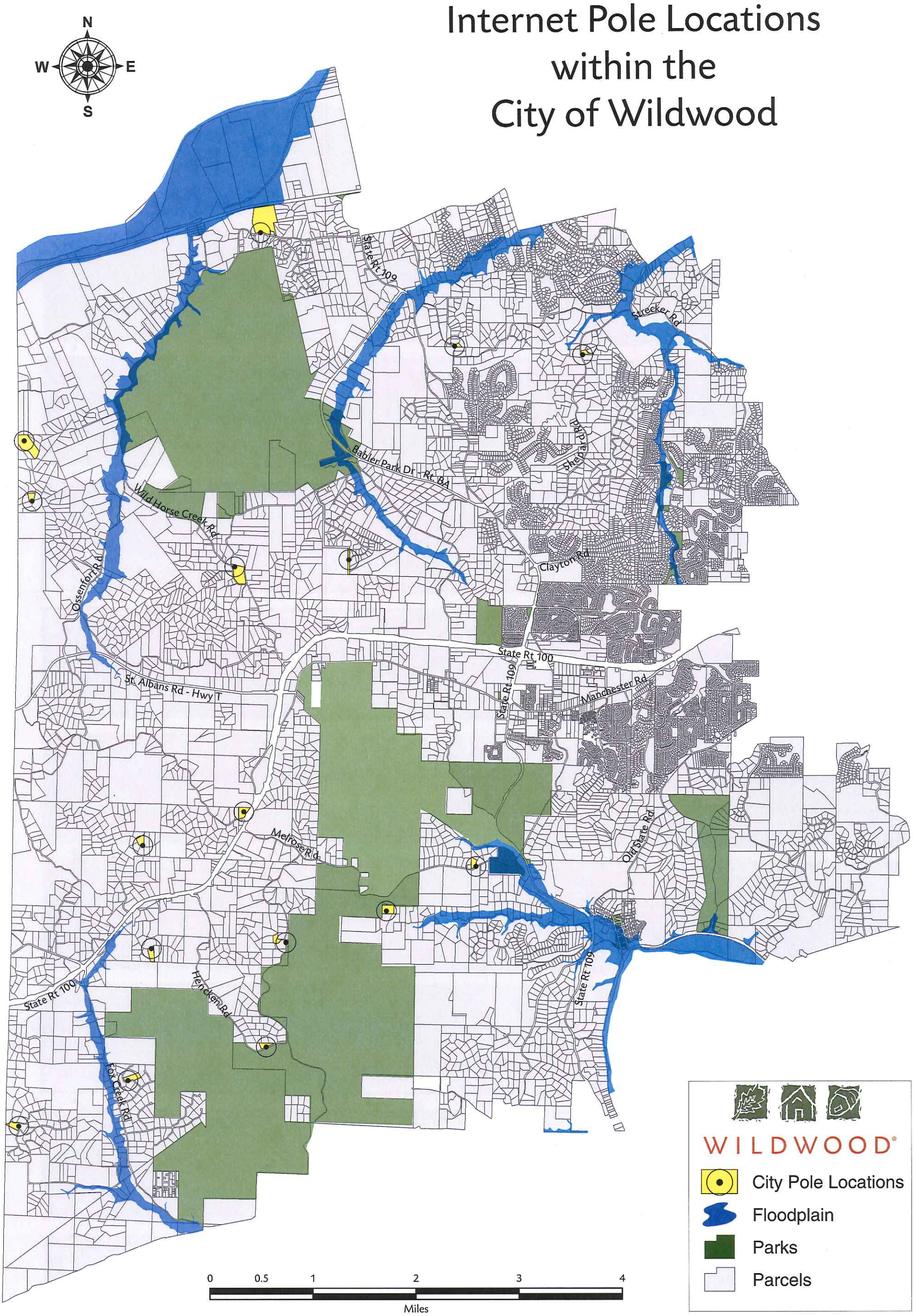
Level	Price per Month	Download Speed	Upload Speed
Bronze	$39.99	3 Mb	512 kb
Silver	$49.99	6 Mb	512 kb
Gold	$69.99	9 Mb	1 Mb
Platinum	$89.99	15+ Mb	2 Mb

Wisper ISP (Provider in the North Area of the City) – *currently serving 107 Wildwood customers*

Level	Price per Month	Download Speed	Upload Speed
Me	$39.99	5 Mb	1 Mb
Us	$54.99	10 Mb	2 Mb
Pro	$79.99	15 Mb	3 Mb
Ultra	$94.99	20 Mb	4 Mb

The Department can provide more background on this matter at tonight's meeting, if members have specific questions in this regard. If any of the Committee Members should have other questions or comments before tonight's meeting about this information, please feel free to contact the Department of Planning and Parks at (636) 458-0440. Thank you for your review of this information and participation in tonight's discussion.

Internet Pole Locations within the City of Wildwood



*Prepared by the Department of Planning - City of Wildwood | St. Louis County, Missouri | September 2016

Tim Reinhold Enterprises, LLC
DBA T.R.E. Electric, LLC
31 New Street
Sullivan, MO 63080
Address Service Requested

Proposal

Date	Proposal #
9/19/2016	7385

Name / Address
City of Wildwood Attn: Frank 16860 Main St. Grover, MO 63040-1226

Terms	Job Name	Job Address	Phone Number	Fax Number
Due on receipt		Misc	636-458-0440	

Description	Price
1. INSTALL (4) 40FT POLES PER THE FOLLOWING: A. FOX CREEK RD & MODEL REALTY RD B. VIXEN DRIVE C. 17721 MELROSE ROAD D. 18321 WOODLAND MEADOWS E. INSTALL ELECTRIC F. INSTALL 24" X 24" JUNCTION BOX ON EACH 2. WE WILL FURNISH ALL LABOR AND MATERIALS	15,800.00

A fee will be applied to all credit card transactions. A 1.5% Late fee will be applied to any invoice not paid within 30 days. We the undersigned do hereby accept all terms and conditions of this proposal.	**Price**	$15,800.00

Phone #	Fax #
(573) 860-2514	(573) 860-3162

Signature:_____

Summit View Place Subdivision
Comments and Feedback on Bays ET Service

Having been in the customer service field for 35 years with Ameren, it has been my experience that we always hear the bad comments, but very seldom the good. I emailed all the residents in my subdivision requesting their feedback (good and bad) on Bays service. Below are the comments I have received to date. There are some bad, but my impression is most of the residents are happy with the service. I also hope the repeater pole on Melrose will help those that cannot get service or are getting inadequate service.

Tom & Terry Milne – 17507 Summit View Place Cv

> "After the first couple of weeks, the service from Bays-ET has been fine. We're only at the entry level, but speeds now are pretty reliable and it's SO much better than the old UVerse Internet service that we had previously."

George & Marie Vogler – 17401 Summit View Place Ln

> "All we can say is that the service with Bays is a lot better than AT&T DSL. We Very Rarely lose the connection. I think maybe twice in the last year. If we do, we can talk to a live human who has either fixed the situation within an hour or so, or explains what it will take to get it fixed, if it will take longer than that.
> We have the basic service for $49.99. George and I can both work on our separate computers at the same time with no problems. We surf the net, email, pay bills etc. and We can stream Netflix MUCH better than with DSL. The sound track actually is in sync with the picture now. We are very happy with it.
> We were interested in your comment that we all wish we had Charter or U-verse, because we don't. We are perfectly happy with Bays."

Paul & Kathy Arnett – 17725 Melrose Rd

> "We have been happy with Bays. We have the highest speed package and for a while we weren't getting the highest speeds, but we called and they switched out our equipment quickly. I think things are going well. The repeater poles will help too."

Bill & Bonnie Dyson – 17525 Summit View Place Cv

> "Bays works well when it is working. A little slow at times. We have to call and figure out what is going on, but for the past two weeks our internet goes out every night and we have to reboot it every morning. Occasionally have to reboot it again during the day. Just stops working."

John & Catherine Lorson – 17707 Melrose Rd

> "I did sign up with Bays and have been enjoying the service. Although not as fast as charter but it is lightyears ahead of what I had previously. I can even watch Netflix now. No real complaint. Once in a while the signal will stop and occasionally I have to reboot my router. Not sure if that is a function of the service or just my router. So in short, no real concerns. I have called their helpdesk over service issues and have always talked to someone quickly and they have been able to resolve the issue."

John & Dianne Adam - 17504 Summit View Place Dr

> "We are pleased with our service. It is much more economical than what we were previously using which was through Verizon. The only complaint is that when weather is bad the service is noticeably slower."

Terry & Renita Wold – 17715 Melrose Rd

> "As far as internet service ours has been ok. We have times in the evening when live streaming through our T.V. (Netflix) & computers has been sketchy. Overall there's a definite improvement to what we had in the past."

Doug & Marilyn Pernikoff – 17533 Summit View Place Cv

> "We never were able to get service started. Their follow up was poor at best."

Mark & Katie King – 17505 Summit View Place Rdg

> "We have been fairly happy with the new internet service. At first we were resetting the router a couple of times a day. But lately we haven't had to at all."

John & Marita Boyce – 3126 Summit View Place Dr

> "We have Bays. I cannot provide a good review at this time. We still have Hughes Net Internet also. We have found that Bays tends to bog down and run very slowly. I contacted them one time when my kids were home and we were all trying to use the web at the same time and it was just churning for us. Even after we logged off the computers and only one tried to access the web it did the same thing. Bays tried to tell me that we must have had some programs running in the background on our computers. I haven't switched our home phone over to Bays yet which is currently being run through Hughes, therefore I haven't canceled Hughes Net. What is the overall satisfaction of the people in our neighborhood with Bays? Hughes net worked fine it is just costly with data limits. I haven't tried using Bays yet for movie watching etc."

Brian & Barb Satterthwaite – 3108 Summit View Place Dr

> "We have been happy with the Bay-ET service. After the dial-up, satellite (2 I think) that we have had since moving out here 9 years ago, it has been great for us. There have been occasional glitches, maybe half a dozen, that we have noticed which have resolved themselves in 20-30 minutes and one after a bad storm that finally resolved itself after a couple of days (we were headed out of town so weren't able to be here to check it for a couple days). Their customer service has been incredible. In fact, after the day long outage resolved itself, they still came by to double check everything because there had been so many power outages over that weekend."
> I'm sure the true U-verse or charter would be faster and perhaps a bit more reliable but for our purposes, streaming movies, running spreadsheets, homework, it's been fine!"

Jeanine Hall – 17520 Summit View Place Ridge

> "The service is better than we had before with DSL but the speed is inconsistent. We are paying for up to 9 mb/second and often have only 3 mb/second. Also, during storms the service will go down temporarily. Otherwise, it's ok."

Michele Reed – 17417 Summit View Place Ln

> "Sorry for the delay in reaching out to you regarding your inquiry. It is working better than AT&T, however, we experience several times a week of slow service and sometimes no service…we have the most expensive package and it isn't as good as we would like.
>
> I'm not in town so I can't give you a lot of particulars, but we seem to notice some sluggish hours on Sunday particularly and during the week if we are doing any WebEx conferencing from the house, sometimes it's not very reliable."

Fran Maher – 17425 Summit View Place Ln

> "I will say that their customer service is good. We do have a lot of times when the Internet is down or extremely sluggish. We also have quite a few places in our house where we can't get any signal at all."

Renita Wold – 17715 Melrose Rd

> "As far as internet service ours has been ok. We have times in the evening when live streaming through our T.V. (Netflix) & computers has been sketchy. Overall there's a definite improvement to what we had in the past.
> Thanks for your follow up.

Debbie Trunko – 17517 Summit View Place Cv

> "I am very happy with our service. Our house is on the edge of the coverage and we are waiting for the repeater pole on Melrose to provide a better signal. I have had some equipment-related issues and Bays came out immediately and fixed them. I have always received excellent customer service. The few times there were outages I received an update on the situation quickly when I contacted Bays. I do realize that service is going to be slower at peak times. This is no different from other wireless providers. I have attended many meetings over the years and the main objective of the City was to get a "no-cap" internet service at a reasonable cost. This is the best option to date."

Thursday, September 22, 2016

Mtg with Rick Kallaus

Subject

Attendees

- Rick Kallaus
- Joe Vujnich
- Kathy Arnett

Meeting Notes

- Bays is working daily to provide and expand service. Some trouble with customer service.
- Wisper has cancelled last 2 meetings with engineer on Babler tower design.
- For 10-6-16 meeting, provide detailed history for new committee members
  - Should include list of options investigated and providers contacted
  - Current status
  - Reimbursement model
  - Differences in service model from Bays and Wisper
  - Unserved/underserved map - can try, but don't have exact locations of where Charter and AT&T are going/have expanded. AT&T considers their locations as proprietary and won't share that information.
  - review Committee's definition of served v. unserved
- Will provide information on MO American Water's new wireless meter reading program at next meeting
- Reach out again to Nathan at Wisper and let him know that RIAC is re-formed and recheck its interest level