

Broadband Availability Report Phase 1

Executive Summary

This is a report of the Cable Advisory Committee in response to the charge from the Board of Selectmen to explore broadband availability in Truro with the goal of universal coverage within the town. Michael Forgione and Bill Goodbody researched this issue on behalf of the Committee.

An Analysis of what per cent of the Truro's Households have or could have Broadband Access from Comcast was conducted. The key questions that we wanted to address were:

1. What per cent of the Households in Truro have or could have Broadband service from Comcast?
2. Could the town of Truro build a case for grant money under Recovery Act to build an Internet Network for the entire town?
3. Could the Town build a case for grant money under the Recovery Act to build an Internet Network for "selected parts" of the town?

Full Town: Coverage

We started out thinking that there were a large percentage of the properties with buildings that did not have access to service perhaps as much as 50%. Our research came to a different conclusion. **Our work to date indicates that the number of properties with buildings with or having access to Broadband service today via Comcast is between 93 and 98 percent of 2,800 lots with buildings.** Thus, our best estimate is that there are between 65 and 198.5 lots, with a building of some kind, without Broadband service from Comcast.

Our conclusions are preliminary because of the difficulty at getting at the exact information. To get our estimates, we used a street level approach to simplify the analysis, knowing that to get to precise numbers we would have to gather data on individual lots as some streets have access to broadband at some of the lots (e.g. Longnook and South Highland Road).

Full Town: Grant Possibility

Under the Recovery Act, consumers residing in un-served or underserved area can submit a Grant proposal. The NTIA defines un-served as "at least 90 percent of households lack access to broadband service. It defines underserved as "No more than 50 percent of the households have access to broadband service" **Based on these definitions; no case for a grant proposal could be made based on the entire town.**

UPDATE: Since the original report was drafted, more details have been released on the process. Based on an initial review, it looks like the Census Block criteria have been changed to "Service Area". This does not seem to change the conclusion.

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Selected Areas: Grant Possibility

When looking at the Comcast Service Area map (see appendix), you can quickly see a pattern of where Comcast service is available and where it is not. Given this “grouping” pattern, is there a way to justify Grant money for these areas only? Based on the NTIA definition of un-served and underserved, this is possible if we can find Census Blocks that meet the 50% and 90% definition.

When we did the original work, the understanding was that any grant would be evaluated based on census block. We made a “best efforts attempt” at identifying these census block boundaries. The census blocks that are mostly un-served are: 2000, 2036, 1005, 4000, 4027, and 4018. Like a street based analysis, census block is even more difficult as census blocks are difficult to determine houses on the same street may well be in a different census block. The details of our analysis can be found in the appendices.

Our conclusion is that based on the definition at the time of our analysis is that we may be able to file a grant for some of the census blocks.

UPDATE: Since the original report was drafted, more details have been released on the process of scoring the grant requests. Based on an initial review, it looks like the Census Block criteria have been changed to “Service Area”. Depending on the definition of Service Area, the MAY change our recommendation.

Process Used in Analysis

First we obtained and processed records from the Assessor’s Office

1. Obtained an extract from the Assessors database. This includes all the taxable property in Truro.
5,389 records
2. From this file, we created our own Access Database to simplify data analysis.
3. Eliminated from consideration
 - 2, 589 records leaving 2,800 records for consideration
 - a. Personal Property Tax records
 - b. Any Lot which had which had no assessment for a Primary or Accessory Building
 - c. Any Lot with specific a State Class Description code, See appendix for list.
4. Extracted a Street List from the Assessor’s Data
355 Streets
5. We decided to work only at the street level to simplify the process, we assumed as a starting point that ALL streets had Comcast Service. These were coded as “Built – Default Start”
6. Determined which of the following categories a street was in using the map of the Comcast Service Area supplied by Comcast(see appendix) and the expected contract commitment to expand coverage in Truro.
 - a. “Not Built - Street”: not marked in yellow on the Comcast map
 - b. “Not Built, Contract Commitment”: Part of the 2009 Contract Draft
 - c. “Built – Partial”: Any street that Is yellow only part of the way

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7. Using the Census block map, prepared by the IT Director identify the Census block # for the areas that look un-served, some streets were coded with a Census Block number.

Assumptions & Potential Problems with our Process

We know that the analysis cannot yet be 100% accurate because:

1. All we were able to get from Comcast was a Map that highlighted the streets that Comcast claims service was available on. Many of these streets were not named. In addition, the accuracy of the maps was not be verified.
2. The process was done at a street level, NOT individual lots to save time. This means that any street that does not fall into more than one of our categories could distort the results
3. Census Block information was added from a map with census block number supplied by Gary Delius; Again, it is clear that census block information is NOT uniform for a given street and can only become accurate by coding these at the individual address level. So far, this information has not been easily available.

However, we believe the results are a reasonable place to start our analysis to determine the scope of Broadband Service is in Truro today.

What are the next steps?

We recommend the following steps be taken.

- Board of Selectmen reviews this report.
 - Accept, reject or modify conclusions
 - Same for next steps
 - Board determines how aggressively to move forward and on which issues.
 - Grants
 - Additional Service via what kind of solution and guideline for how
 - Small Areas (RFP for design/build)
 - Whole Town (RFP for design/build)
 - Make public this report via the town website and email to the NRTPA
- Goals: Confirm/Correct the data & Conclusions
- News Story
 - Link to CAC page
 - CAC page
 - Copy of report
 - Seek feedback on 2 topics
 - Data Validity (looking for negative feedback)
 - Primarily to determine if Un-served streets and partially served streets are complete, or did we miss some?
 - Conclusions

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- After a period for feedback
 - CAC comes back to board with findings and what next recommendations
 - Include any cost estimates for grant /RFP
- Obtain more specifics on availability of service on partially served streets.
 - Visual Inspection of each street
 - Move data to property level in database
 - Update Statistics
- Determine the meaning of “Service Area” in the grant scoring criteria.
 - Make change to the recommendations, if needed & report of BOS.
- If needed, obtain, code and process census block information for the properties
 - Either all or just those concerned
- Propose a specific process (with cost estimates) to file any grant proposal
 - RFI or
 - RFP (design or design/build)

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Property Classes Excluded from Analysis

Excluded Property Classes	
StateClassDesc	StateClass
Access Land	1060
Ind Trust	5010
Dom Bus Corp	5020
Pub Util	5040
Machinery	5050
Cell Wireless	5080
Mass Highway	9240
Vacant Cons	9320
Vacant - Cons	9500

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Street Level Data

Streets with No Service Today	
Location	Lots
AUNT SALS LN	2
BLACK POND RD	4
BRADFORD RD	1
COAST GUARD LN	2
COAST GUARD PATH	1
COAST GUARD RD	6
COAST GUARD TERR	4
COLLINS RD	6
DOROTHYS LN	3
DYERS HOLLOW RD	2
EDGEWOOD WAY	1
FOURTH OF JULY RD	7
HEAD-O-PAMET WAY	3
HIGHLAND LIGHT RD	4
HORSELEECH RD	3
KIMBERLEY LN	2
LONG DUNE LN	4
NO PAMET RD	26
OCEAN BLUFF LN	2
OLD DEWLINE RD	1
OLD DEWLINE RD - END	1
OLD OUTERMOST RD	3
PAMET PT EXIT	2
PRISCILLA RD	1
SLOUGH POND RD	12
SO PAMET RD	36
SO PAMET WAY	3
27 Streets Listed	142

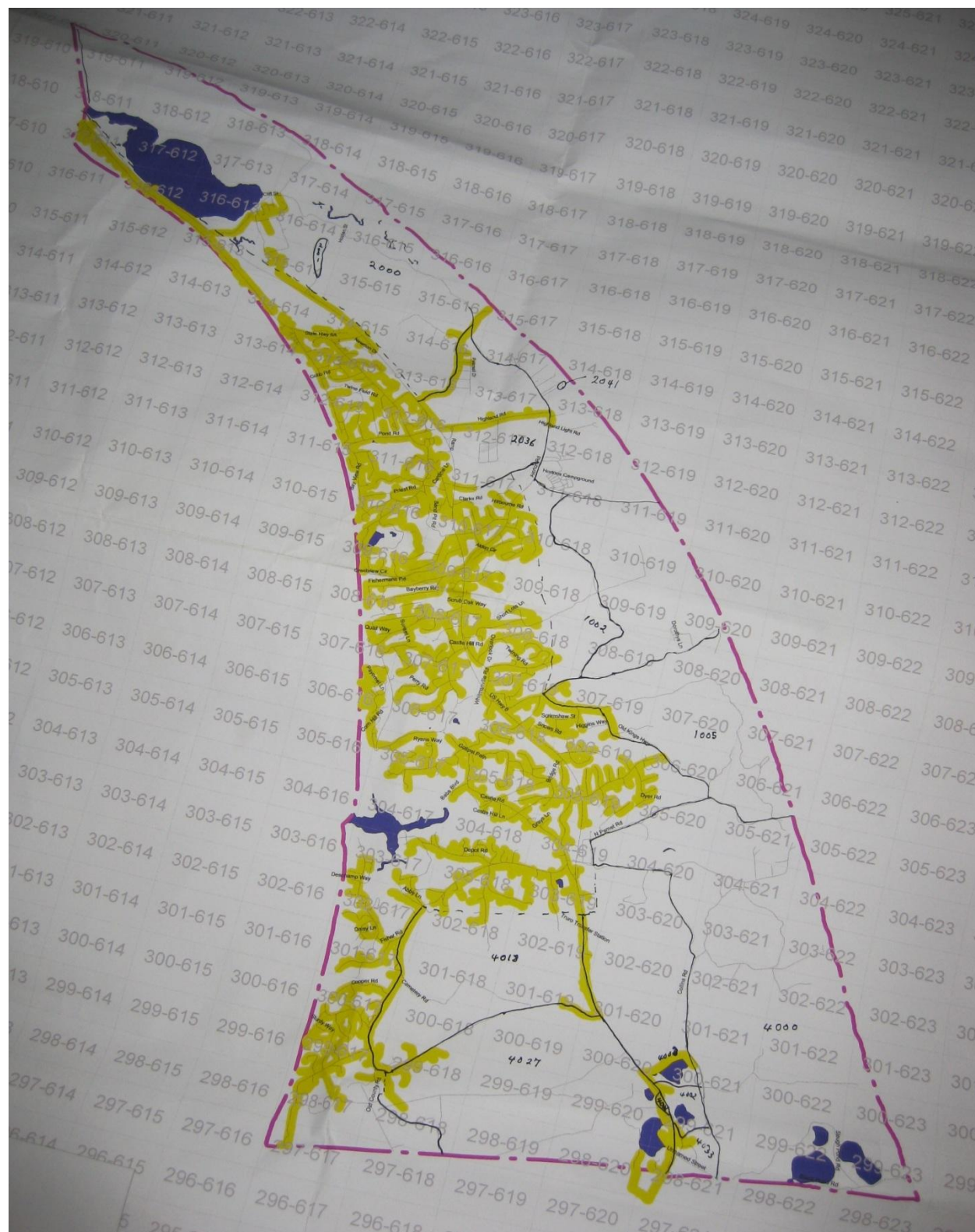
Streets - New Contract Commitment

Location	Lots
AUNT SALS LN	2
COLLINS RD	6
DYERS HOLLOW RD	2
HEAD-O-PAMET WAY	3
LONG DUNE LN	4
NO PAMET RD	26
SO PAMET RD	36
SO PAMET WAY	3
8 Streets Listed	82

Note: The estimate is that it may take up to 5 years to be completed

Streets Partially Served

Location	Lots
AVERY WAY	5
CLIFF RD	5
ELSIES RD	2
HATCH RD	9
HOLSBERY RD	11
LONGNOOK DR	4
LONGNOOK RD	17
MEADOW TERR	4
OCEAN VIEW TERR	1
OLD KINGS HWY	5
PRINCE VALLEY RD	16
SO HIGHLAND RD	27
SO HOLLOW RD	3
13 Streets Listed	109



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Census Block Data		Served % or Count		
	Count	Scenario 1 ^{*1}	Scenario 2 ^{*2}	Scenario 3 ^{*3}
For Census Block 4000		85%	74%	13%
Total Buildings	126	126	126	126
Total Served	3	3	3	3
Total Not Served	19	19	32.5	109.5
Total on Contract	77	77	77	0
Total Built Partial	27	27	13.5	13.5
For Census Block 4027		100%	67%	67%
Total Buildings	3	3	3	3
Total Served	1	1	1	1
Total Not Served	0	0	0	0
Total on Contract	0	0	0	0
Total Built Partial	2	2	1	1
For Census Block 4018		100%	86%	86%
Total Buildings	57	57	57	57
Total Served	41	41	41	41
Total Not Served	0	0	8	8
Total on Contract	0	0	0	0
Total Built Partial	16	16	8	8
For Census Block 1005		100%	100%	82%
Total Buildings	11	11	11	11
Total Served	9	9	9	9
Total Not Served	0	0	0	2
Total on Contract	2	2	2	0
Total Built Partial	0	0	0	0
For Census Block 2000		33%	26%	26%
Total Buildings	33	33	33	33
Total Served	5	6	6	6
Total Not Served	23	23	25.5	25.5
Total on Contract	0	0	0	0
Total Built Partial	5	5	2.5	2.5
For Census Block 2036		100%	95%	95%
Total Buildings	31	31	31	31
Total Served	28	28	28	28
Total Not Served	0	0	1.5	1.5
Total on Contract	0	0	0	0
Total Built Partial	3	3	1.5	1.5

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Total For Census Blocks Listed		85%	75%	44%
Total Buildings	261	261	261	261
Total Served	87	88	88	88
Total Not Served	42	42	67.5	146.5
Total on Contract	79	79	79	0
Total Built Partial	53	56	28	28

Count: each taxable "lot" counts as 1. For a Condominium each unit counts as 1.

*1: Scenario 1 **assumes** the Streets categorized as: "Built - Default Start" + "Not Built, Contract Commitment" + "Built – Partial" were fully served.

*2: Scenario 2 **assumes** the Streets categorized as: "Built – Partial" were 50% served, and the other 2 categories were fully served.

*3: Scenario 3 **assumes** the Streets categorized as: "Built – Partial" were 50% served, "Not Built, Contract Commitment" was not served at all and the other rest were fully served.