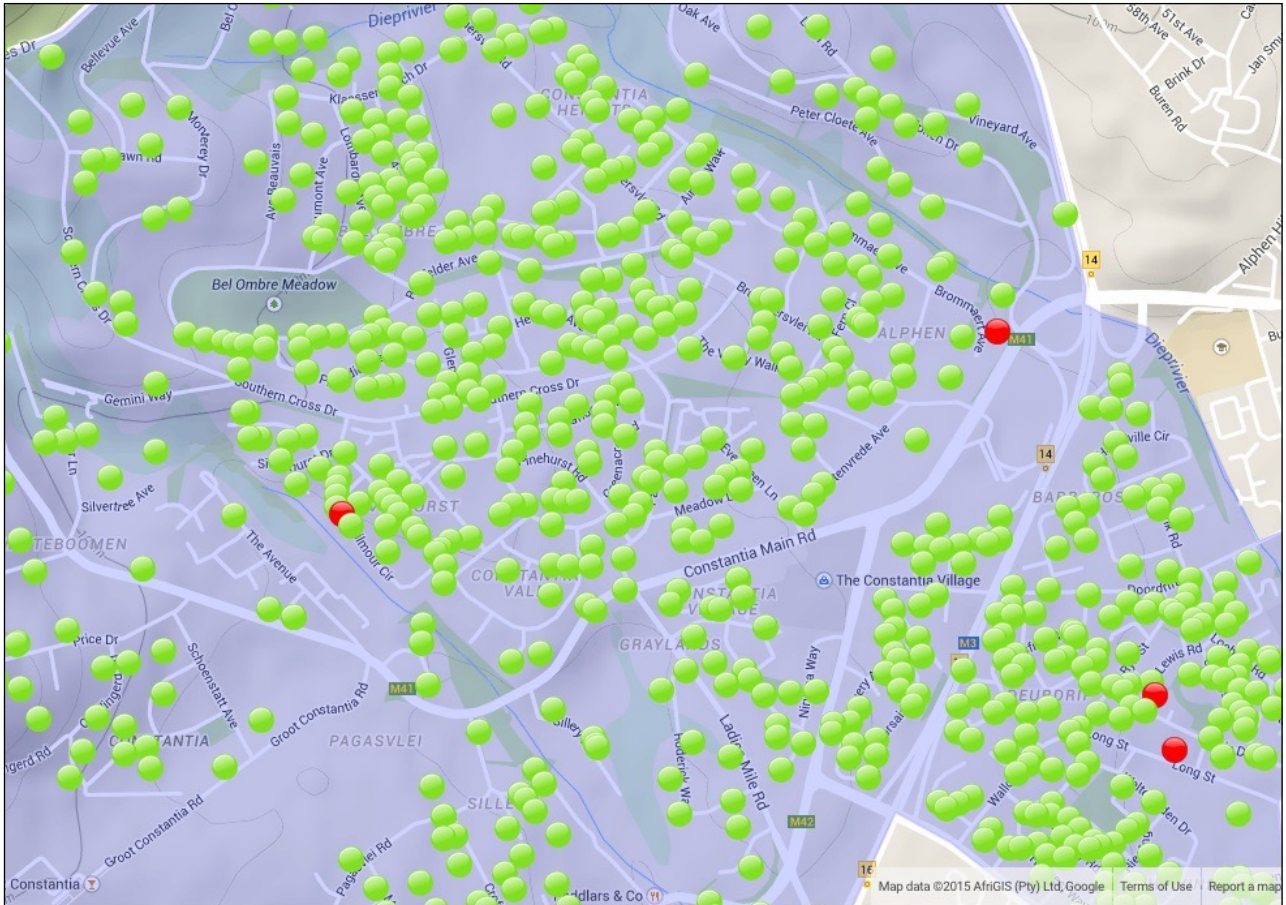


# Constantia Fibre Initiative

## Request for Proposal

Martin Diessner - 26 February 2015



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## Introduction

In late January 2015, representatives of various Constantia community organisations including the Constantia Property Owners Association, Constantia Watch, Nova Constantia Crime Watch, Constantia Hills Community Watch and the Strawberry Security Association initiated the Constantia Fibre project with the objective to bring fast Internet access to the residents of the Constantia valley.

## Connectivity in the Constantia Valley

Constantia is an affluent residential area with approximately 3500 home owners and a few commercial nodes. It is one of the oldest suburbs of Cape Town approximately 15km South of Cape Town's CBD. It is nestled below Rhodes Drive on the back of Table Mountain and bordered by the Tokai forest on the East and Bishopscourt on the West. For the purpose of this project we have drawn the line up to the M3 motorway, however, residents beyond this axis have already shown huge interest in accessing fibre.



Internet access is widely available through ADSL which runs over predominantly copper phone lines that are generally some distance from main exchanges so that VDSL is barely an option to upgrade for line speed. Much of this infrastructure runs through green belts that are badly maintained and in many instances vegetation has grown into phone lines diminishing line and data quality substantially. The majority of residents have 1-4Mbps available with generally very bad line quality. Although some homes which are closer to an ADSL exchange seem to benefit from line speed of 8-10 Mbps.

Historically, the valley has 'suffered' from insufficient mobile reception due to forest habitation and line of sight restrictions related to the valley topology. In addition, various resident groups are opposed to the construction of unsightly large cellphone towers that are also considered to pose health risks due to radiation emissions.

The Constantia Watch and neighbouring community watch organisations operate about 200 CCTV security cameras that are currently linked via wireless broadband to the

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community control room and are an essential tool in fighting crime in the area. Capacity on those camera networks is limited and further enhancement is envisaged with the roll out of a fast fibre network that can carry the required bandwidth of live CCTV streams.

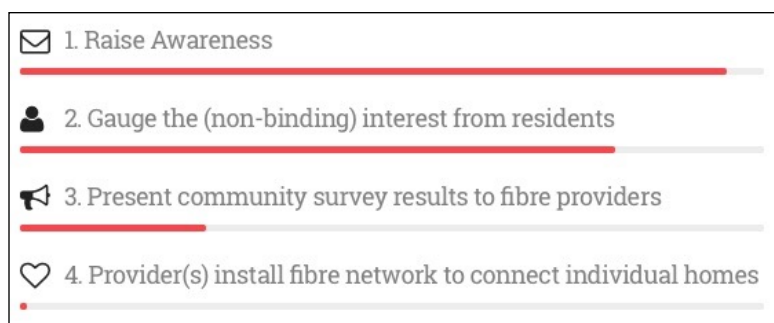
## Project Plan & Scope

Although fibre is predominantly associated with high speed Internet, we are aware of the various other spin-offs and we aim to work with one or multiple service providers to introduce these additional services:

- **Improved security** by supporting the Constantia CCTV camera project
- **VOIP phone** services eliminating the need for analogue phone lines
- **HD Entertainment** to stream TV content thus eliminating satellite dishes
- Improving **cellphone coverage** by installing decentralised mini-antennas on camera poles or traffic lights powered through the fibre network.
- Additional services such as **smart metering** and **home automation**

We also aim to work with multiple service providers who follow an open access model e.g. allow multiple fibre cables in the ground and a free choice of internet service provider regardless of who owns the physical fibre connectivity to the home.

All the organisations behind the Constantia Fibre initiative will be providing support in rolling out this project. The plan is very simple and illustrated below:



To date, we have used email database and other channels to raise awareness for the project. We have explained to residents that our role is that of a lead generator for the actual service provider(s), and once selected, we will work with them to facilitate an efficient roll-out. We will introduce the service provider's offer to the database of registered residents so that the formal sign-up process between them can be facilitated.

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## Resident Registration and Results

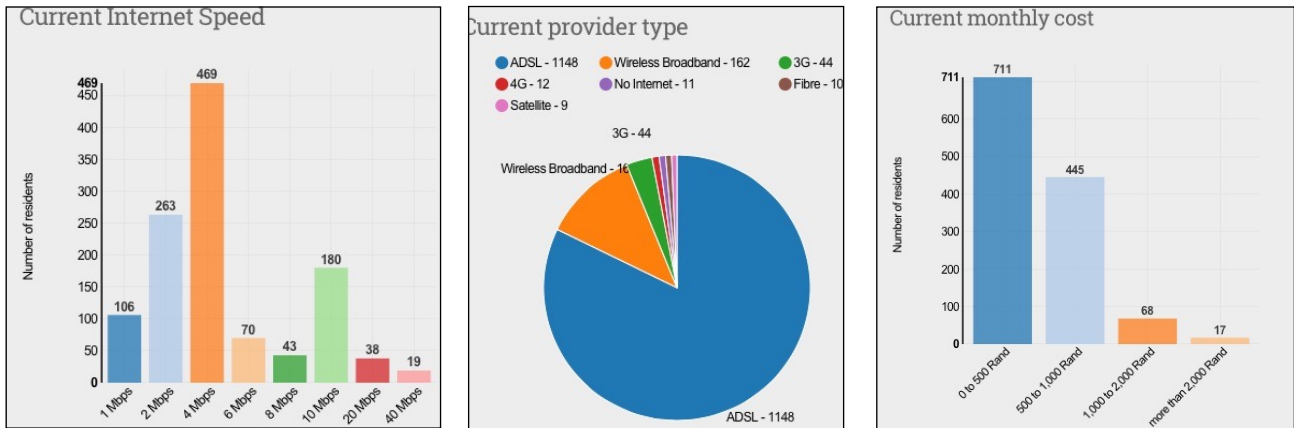
We have asked residents to support the Constantia Fibre initiative by registering on the [www.constantiafibre.com](http://www.constantiafibre.com) website through a non-binding registration form. The objective was to gauge interest in the fibre project, to record current connectivity and to gather contact details. Below is a screen shot of the registration form:

The screenshot shows a registration form with the following fields and options:

- Your full name**: Text input field.
- Your email address**: Text input field.
- Your phone number**: Text input field with a note: "Can be mobile or landline number".
- House number and street name - no suburb or post code please!**: Text input field with a note: "Please provide a correct address so we can match interest by area".
- 1 adult**: Slider control for the number of adults in the household. Note: "How many adults and children live in your household? Move the slider to increase/decrease."
- 0 children**: Slider control for the number of children in the household. Note: "Move the slider to increase/decrease."
- Internet options**: Radio buttons for "No Internet", "ADSL", "Wireless Broadband", "3G", "4G", "Satellite", and "Fibre".
- Your current Internet provider**: Text input field with a note: "Please provide us with the name of your Internet provider, e.g. Telkom, MTN, Vodacom, Nexus, ...".
- 100 Rand per month**: Slider control for monthly internet cost. Note: "Please tell us how much approximately (in Rands) you are currently paying for your Internet. Move the slider to increase/decrease."
- Select ---**: Dropdown menu for internet speed. Note: "What speed are you currently paying for? Best guess is fine - value in Megabyte per second".
- Star rating**: A row of 10 stars for rating current internet speed. Note: "How happy are you with your current Internet speed?".
- Yes / No**: Radio buttons for the question: "Would you be interested in signing up for super fast Internet through fibre?".

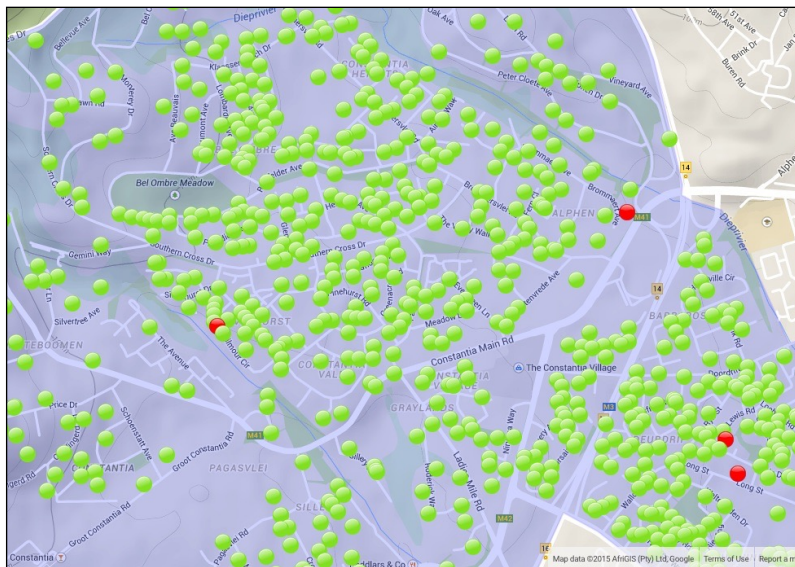
From a potential of approximately 3,500 households, we currently have registered 1,372 residents with a non-binding intent to sign up for fibre, and fewer than 30 have indicated "not interested".

Residents' combined annual spend on Internet related services excluding cost of HD Entertainment (DSTV, Apple TV, Netflix) or VOIP (phone, fax) currently **exceeds R 8.1m per year in total** - we believe this presents a commercial opportunity for any service provider to enter the Constantia valley. In addition, we already have significant interest from neighbouring suburbs such as Bergvliet, Meadowridge, Doordrift and Tokai (+5,000 residents) - we work closely with their home owners and neighbourhood watch organisations who are keen to sponsor and support an extension of the Constantia initiative.



More survey data: The current quality of connectivity experienced is extremely poor - rated 3 out of 10 (whereas 1 is the lowest and 10 highest). On average, most households consist of 2.4 adults and 0.9 children. 70% of respondents have speeds of 4Mbps or less, and 80% of them via ADSL.

Live data from the survey can be accessed from [www.constantiafibre.com/results/](http://www.constantiafibre.com/results/) and a map overview with geo-encoded data of residents that have signed up for fibre is displayed on [www.constantiafibre.com/map/](http://www.constantiafibre.com/map/)



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## RFP Guidelines

The objective of this RFP is to engage with a number of fibre service providers and to **identify the most favourable proposal for the residents of the Constantia valley.** Installation cost, price and speed are major criteria for the end consumer when deciding for an ISP. However, we feel that there are many other criteria to consider such as maintenance, ownership, contention ratio, infrastructure, redundancy, open access model, and many other technical aspects.

The proposal should be submitted entirely via electronic copy (e.g. DropBox link) divided into three sections:

1. **Company Information:** company name, website address, contact details of RFP team including mobile numbers and email addresses. In addition, please setup an email distribution group e.g. [constantia-fibre@yourdomain.co.za](mailto:constantia-fibre@yourdomain.co.za) which will eliminate typos when dealing with SPs and also channel all communication within your firm. If you are a privately owned company, please submit CK1 / CM1 (incorporation document) and CoR39 (register of directors) as a scanned document.
2. **Formal Submission:** This part of the RFP comprises the “hard facts” of your proposal in table format which will allow us to compare your response with that of other participants. Please be as specific as possible in your response and do not deviate from the question and possible answers. Any further information can be made in Section III of the RFP (guidelines below). The formal submission will be regarded as information that can be made public to the community via our website.
3. **Open Submission:** Whereas the first and second section are mandatory, the third section is optional and should comprise of additional information that enhances the “hard facts” provided in Section II. There is no limitation on length or format - please outline your proposal in as much detail as required. This part of the RFP will be regarded as strictly confidential and will be made available to the project and expert team of the Constantia Fibre initiative (as published on our website) only. Any financial or competitive advantage information should be submitted here and clearly marked as strictly confidential.

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## **Section I - Company Information**

Please provide information requested on your letterhead in your own format.  
Email distribution group as described above.  
Documentation as requested.

## **Section II - Formal Submission**

Please provide information in tabular format as indicated below.

Question	Explanation
<b>Proposed start date</b>	Specify Week in 2015 for start of project
<b>Period of roll out</b>	Outline major project mile stones and timelines
<b>Proposed life date</b>	Specify exact date of first household going 'live'
<b>Proposed life time</b>	Estimate date of 100th, 1000th household and 90% of Constantia being connected
<b>Specification Cable</b>	Outline for which part of network buried or aerial fibre cable will be used e.g. resident/business->road->street cabinet->access nodes->distribution node->area router->data centre->backhaul
<b>Open Access</b>	Specify which parts (cable, equipment) of the network will be open access
<b>Pricing and Quality</b>	Specify pricing and quality (including speeds, where relevant) for individual components of the service to be provided. Include contract terms. If a large number of options available, provide low / medium / high usage rates / prices and add detailed price / quality overview in section III. Point out contention ratio and other quality determination factors.
<b>Symmetric Product</b>	Specify production definition e.g. symmetrical vs. asymmetrical product
<b>Price Stability</b>	outline mechanism to liaison with community with regards to price increases or quality reductions
<b>Profitability</b>	Will the Constantia project be a profit making one or a loss leader to kick off other projects? Simple yes / no - detailed financial projections in part III.
<b>Funding</b>	How do you intend to fund the purchase of equipment, and the installation cost? Are you able to commit existing capital to this project or how long would it take to raise capital? Yes / no - timeline.
<b>QoS</b>	Provide network uptime guarantee and summary of SLA including mean time to respond / restore to outages.
<b>Redundancy</b>	Which ISP(s) are you proposing to use, and outline redundancies via various network equipment / layers from resident point to major ISP backbone.
<b>Call Center</b>	Availability, numbers of seats, languages spoken. Online helpdesk?
<b>Upgrades</b>	Technology upgrade time (e.g. every X years) per major network segment
<b>Installation cost</b>	per resident household / business. How do you deal with estates or body corporate complexes (town houses, apartments)?
<b>Customer premise equipment</b>	Which CPE will be installed at residents. Provide cost (if any) and link to technical specification.
<b>Minimum Uptake</b>	What is your minimum threshold for the project to commence as in number of residents signing up?
<b>Collection</b>	How do you manage collection of subscription and service fees?
<b>Network architecture</b>	Active (AON) or passive optical network (PON)



Question	Explanation
Service Delivery Platform	Which platform do you intend to use for end users, network operators and service providers
Additional Services	List additional services such as VoIP, VPN, ...etc. Detailed description in part III
DAS	Are you providing support for cell phone mini points
CCTV	Are you willing to support the community neighbourhood organisation with free installation of fibre to camera points (avg. 3 cam/ point) as well as unlimited bandwidth. Currently approximately 80 camera points with 200 CCTV in operation.
Control Room	Would you be able to provide (at no extra cost) connection and connectivity to the community control room located at Bergvliet (Cnr Hiddingh and Childrens Way)?
Coverage	Are you able to service the full Constantia area as outlined on the Map published on our website? Are you able to extend the project to neighbouring suburbs such as Tokai, Bergvliet, Doordrift and Meadowridge?
Wayleave	Explain mechanism to liaise with community and council with regards to construction and re-instatement of verges, city power permissions etc.
Dependencies and risk	List tangible dependencies and risk of the project if awarded to you

### Section III : Open Submission

Optional additional information in your own format

### Timelines

The proposed overall timeline is as follows:

Date	Action
Fri 27th Feb 2015	Request for proposal published on website and SP notified
Mon 2nd Mar 2015	Acknowledgement by SP of proposal received
Fri 6th Mar 2015	SP confirmation to participate in pitch process
Tue 10th Mar 2015	Tentative open meeting for SP to meet and ask questions
Fri 13th Mar 2015	Written response from SP to community with formal and open proposal
Thu 19th Mar 2015	Review of SP proposal(s) and initial feedback
end of March 2015	Appointment of SP(s) and start of legal sign-up process

If you do require further information, please contact Martin Diessner on 0726441789 or on [get@constantiafibre.com](mailto:get@constantiafibre.com)