

The Regional Municipality of York

Committee of the Whole
Finance and Administration
November 5, 2020

Report of the Commissioner of Corporate Services

Improving Connectivity for Ontario Program: Funding Application

1. Recommendations

1. Regional Council endorse YorkNet's funding application to the Ontario Ministry of Infrastructure, under the Improving Connectivity for Ontario Program outlined in Attachment 1.
2. A funding plan for YorkNet's share of the project costs be developed and reviewed through the Region's 2021 Budget process.
3. This report be circulated to the local municipalities and Members of Parliament and Members of Provincial Parliament representing York Region.

2. Summary

This report seeks Council endorsement of Stage 2 of the application to the Provincial Government under the Improving Connectivity for Ontario Program, to expand the Region's broadband network of backbone fibre to rural and underserved areas of York Region.

Key Points:

- Broadband connectivity is essential to every citizen, every day, in many aspects of everyday life – work, education, socialization, healthcare, etc.
- COVID-19 has put an enormous spotlight on why access to high speed internet is an essential service. At no time has the need for connectivity been more crucial
- In York Region, high-speed internet access is not always available at appropriate speeds or affordable prices, particularly in rural communities
- Council created YorkNet with the mandate of increasing fibre deployment for use by the Region, Municipalities, Universities, School Boards and Hospitals (MUSH) sector partners and Internet Service Providers (ISPs). At the end of 2020, there will be approximately 350 km of fibre in operation.
- YorkNet's proposal helps to fulfill its mandate by leveraging funding from other levels of government and partnering with the private sector to provide the Region, MUSH sector partners, and York Region residents with better, more cost effective, connectivity opportunities

3. Background

The Provincial Government has launched the Improving Connectivity for Ontario Program, allocating \$150M to expand broadband and cellular infrastructure in Ontario

On June 3, 2020, the Provincial Government announced the Improving Connectivity for Ontario Program (“ICON”) to invest \$150 million in broadband and cellular service for rural, remote and underserved areas of the province. ICON is part of the province’s \$315 million initiative called *Up to Speed: Ontario’s Broadband and Cellular Action Plan* and aims to address connectivity gaps brought to light by the COVID-19 global pandemic. The pandemic has forced people and businesses to shift to remote learning and work, which is challenging for many who do not have access to reliable broadband.

In York Region more than 500 kilometres of roads have been identified by the Federal and Provincial governments as underserved – meaning they do not have access to services of at least 50/10 Mbps from service providers. YorkNet’s assessment of the total underserved areas indicate that up to 14,000 households have insufficient access to broadband services to meet everyday demands. Post pandemic life will be more reliant on the online world and broadband for many activities such as education, work activities, commerce and retail as well as new opportunities for healthcare delivery.

ICON will provide funding for eligible projects, with other funding from private and public sources

ICON will support projects that rely on collaborative partnerships across the private and public sectors, where investments will be combined to improve connectivity in identified areas of need. ICON will fund up to 25 per cent of eligible costs for projects that deliver minimum speeds of 50/10 to households as the minimum service level. Eligible costs include labour, equipment/material, travel, satellite capacity and other costs directly attributable to the project. YorkNet is proposing a collaboration between all levels of government and private sector for this project.

YorkNet has been qualified as eligible to move to Stage 2 of the process

The program launched on July 9, 2020 and YorkNet received Board approval to apply to Stage 1 of Intake 1 and proceeded with submission. Included in the submission was the attached letter from the Regional Chair and the nine mayors supporting the project. YorkNet received approval on September 25, 2020 to move to Stage 2. This is an indication that this project is considered eligible under the program. The important milestone dates are summarized in Table 1.

Table 1
Intake 1 Milestones

Milestone	Dates
Stage 1 applications due	August 21, 2020
Stage 1 assessments complete, invite to Stage 2	September 25, 2020
Stage 2 application due for initial completeness review (requires Council support)	November 28, 2020
Stage 2 application clarifications and updates due (Ministry of Infrastructure seeking any clarification for processing)	January 15, 2021
Stage 2 assessment complete, applicants notified, and funding offers issued to successful applicants	April 2, 2021

4. Analysis

YorkNet has received endorsement from the Mayors in the Stage 1 application submission

York Region Council has worked to improve Broadband connectivity for many years. Under Council's leadership, a Strategy was created, and their vision resulted in the creation of YorkNet, a municipal services corporation under the *Ontario Business Corporations Act*. This corporation was established to expand the network across the Region and partner with the private sector. In three years of operation, those goals are being realized.

Council continued their support with a letter sent to Minister of Infrastructure, Laurie Scott, as part of the Stage 1 submission on August 21, 2020. Highlighting the significant importance these networks have for the Region's 1.2 million citizens as a cornerstone for the economy, health care and education.

Recognizing the urgent need to enable access for ISPs to connect York Region citizens, YorkNet has led the application process. YorkNet is proposing a Capital and Rural Expansion Project that would expand the network into the more rural areas of the Region. Using the Federal Innovation, Science and Economic Development Canada (ISED) mapping data and property data from the Municipal Property Assessment Corporation (MPAC), YorkNet estimates that there are approximately 14,000 underserved households/businesses in York Region, on approximately 500 km of roads.

YorkNet's backbone and middle mile fibre ensures fibre connectivity is available to all ISPs, who can use the network to offer high-speed internet services to citizens and businesses. This open access network practice is a standard for YorkNet and a requirement for grant funding.

The rural expansion will take the network from 800 kilometres to a total of 1,300 kilometres, blanketing the Region with fibre to create connectivity equity. This will enable access to fibre in all areas ensuring that rural businesses and residents do not continue to be neglected with inadequate infrastructure and services.

YorkNet made a total of 107 connections in 2019 and will make a total of 173 connections in 2020, including fire halls, libraries, Town halls, Regional facilities, water/wastewater, traffic controllers, hospitals and third-party customers. The additional kilometers added through the rural expansion will enhance the diversity and resiliency for Regional and Municipal facility connections. This will open opportunities in the future related to smart monitoring and automation, including Smart City like initiatives and connected cars.

As business operations expand into the digital age, connectivity becomes critical infrastructure. Expanding the Region's network can eliminate the reliance on outside network providers, ensuring adequate resources are available to address whatever is needed for business and emergency situations.

COVID-19 has put an enormous spotlight on why access to high speed internet is an essential service – at no time has the need for connectivity been more crucial

The digital economy is the one of the most important drivers of innovation, competitiveness and economic growth, and holds significant potential for entrepreneurs and small and medium-sized enterprises. New digital trends such as artificial intelligence, cloud computing, mobile web services, smart grids and social media are radically changing the business landscape, reshaping the nature of work and how citizens undertake their daily lives.

Experts predict that work from home and online learning options will remain post COVID. In addition, new modes of service delivery for health care and other services will also have a component of their business likely to remain digitally enabled. Broadband connectivity is essential to operating in the post-pandemic new normal and a modern digital economy.

Fibre is the key infrastructure solution for sustainable, reliable and affordable internet connectivity. It is a reasonable investment, which can touch every citizen in many ways, every day – education opportunities, work, business operations, health, socialization – and close the digital divide with one project.

York Region has significant disparity between residents living in Regional urban areas compared to those in more rural areas

New mapping data shows where adequate internet access exists, and where it is not across York Region. This confirms what many of the Region's Local Municipalities and citizens have been stating for the past decade, that they do not have access to affordable, reliable and fast service. The map provided in Attachment 2, shows this disparity. Large areas of East

Gwillimbury, Georgina and King, and pockets of Aurora, Markham, Richmond Hill, Vaughan and Whitchurch-Stouffville, are underserved or unserved.

Rural communities and residents are not on an equal footing when it comes to access to reliable, stable, affordable broadband services. The Canadian Internet Registration Authority completed a study this summer and found the following results:

- In July, median rural download speeds were measured at 5.62 Mbps, compared to 51.54 Mbps in urban Canada
- Since the pandemic began, median download speeds have effectively plateaued at the 5.62 Mbps speed while urban download speeds doubled from 26.16 Mbps to the 51.54 Mbps

In total this new project would add an additional 500 kilometres, all identified as underserved road kilometres today. This would create a region that was fully fibred, ready to embrace the evolving economy, new technologies and new opportunities.

Fibre is the best choice to ensure service scalability, flexible network options and a long sustainable future for the network

Fibre offers significant advantages over other currently available technologies. Fibre is the only technology which scales with minimal effort. The cable itself can handle tremendous amounts of data traffic with only minor electronic changes. Using micro-conduit to deploy the fibre cable, it can be easily scaled up by adding incremental fibres over time at a fraction of the initial costs. This represents a tremendous ability to scale and grow over 50 years with minimal life-cycle impacts, features unparalleled by other solutions.

There is strong support for the YorkNet's Rural Expansion Project

York Region's local municipalities have been eager to have fibre and improved internet connectivity for a decade or more. Using ISED's map, YorkNet's analysis indicates that there are over 730 km of roads with over 14,000 homes that have inadequate access to broadband services. This program clearly indicates the need for connectivity and fibre into the communities to improve internet access and speeds, and to help improve competitiveness and quality of life for businesses and residents.

In addition, York Region's Medical Officer of Health has expressed support for a network expansion that will provide high-speed internet connectivity critical to health care service delivery even more now, during the COVID-19 pandemic.

ventureLAB, a leading technology hub located in York Region that has engaged with over 2,000 technology companies, including over 100 companies who have created close to 4,000 jobs, has also expressed its support for rural expansion of the network. Citing reliable broadband connectivity as a key driver to innovation and competitiveness in the global broadband economy, their position is that, "without this access to broadband, a connected,

innovative community that modernizes traditional industries, embraces digital adoption, and addresses rural challenges, simply cannot happen.”

YorkNet’s rural expansion project supports the Strategic Plan priorities of Good Government and Economic Vitality

The Capital and Rural Expansion Project has the ability to connect 192 regional facilities, 9 police stations and 96 libraries/community centres/fire stations throughout the Region, leading to enhancing service delivery and more efficient operations. As the Region transitions to having more sensors, cameras and Internet of Things, it can connect them more efficiently through this fibre network.

Connecting residents and businesses will support economic prosperity and growth, especially in underserved and unserved areas where limited bandwidth presents an almost insurmountable obstacle for business expansion and growth.

5. Financial

The total estimated cost of the Rural Expansion Project is approximately \$84M and YorkNet’s portion will be included in the 2021 budget request

Based on recent experience, YorkNet estimates that it will take approximately five years from 2022 to 2026 inclusive to complete the project. The cost has been estimated using average capital costs from current fibre projects plus the estimated last mile and equipment costs. As illustrated in Table 2, the total cost is estimated to be approximately \$83.6 million, funded through the ICON project and other potential sources. The Region’s share is 35% of the total cost, resulting in 500 kilometres of additional fibre assets that can be utilized by the Region, Municipalities and private sector.

Table 2
Capital and Rural Expansion Project Costs and Recoveries

Funding Responsibility	Amount	Share
YorkNet – Currently Unfunded	\$28,857,000	35%
ISP Partner	\$14,380,000	17%
Province – ICON Program	\$20,171,000	24%
Federal – To be determined	\$20,171,000	24%
Grand Total	\$83,579,000	100%

The funding plan will be developed through the Region's normal budget process

The application deadlines for Intake 1 fall outside of the Region's budget process with Stage 2 applications required before the budget is tabled with Council. However, ICON funding assessments and approvals will not be complete until April 2021, which is after the Region's budget has been approved. This means there is time for YorkNet to develop a funding plan that will be reviewed and vetted through the Region's normal Budget process, and then brought forward to Council for consideration and approval.

YorkNet's share of the project cost is currently unfunded. The plan is to work with the Region's finance department to develop a funding request as part of the 2021 budget that could include new funding and/or a draw from tax levy reserves. One option would be to include draws from the Debt Reduction Reserve, which would be a source of upfront funding that will then be repaid through annual contributions made by YorkNet with revenue received from ISPs connecting homes and businesses.

The ISP funding share represents the cost to complete last mile connections including fibre drops and equipment required to bring fibre to residents. This component of the project is vital to its overall success and ability to ensure access to businesses and residents.

This Provincial program along with Federal programs present the opportunity to close the broadband gap in York Region and provide equity regardless of location. Details of the Federal program have not been provided yet, but they are anticipated this fall.

Ongoing operating costs related to the rural expansion project can be recovered from the revenues it generates

ISP(s) will pay YorkNet to use the network from revenues they collect from end-users. It is possible that revenues can start before the full construction is completed. YorkNet has assumed a conservative forecast well within industry standards. Given the lack of network today, the Regional network will be ideal for any provider looking to connect additional homes in these underserved areas.

6. Local Impact

The Capital and Rural Expansion Project will impact approximately 14,000 underserved households/businesses across eight of the nine municipalities in York Region, especially in rural areas. The mayors for all nine York Region municipalities have signed a letter of support for increased connectivity for residents and businesses in underserved areas and for increased connectivity to municipal facilities.

7. Conclusion

YorkNet is building critical infrastructure that supports York Region citizens every day and embraces an evolving world, by leveraging funding programs and partnering with the private sector. The Rural and Capital Expansion Project helps fulfill YorkNet's mandate in all 3

categories – Region, Municipal and underserved areas with private sector – enhancing connectivity by delivering infrastructure into unserved areas across the entire Region to provide opportunity for business, education, health and community.

For more information on this report, please contact Laura Bradley, General Manager, YorkNet at 1-877-464-9675 ext. 71492. Accessible formats or communication supports are available upon request.

Recommended by: **Dino Basso**
Commissioner of Corporate Services

Approved for Submission: **Bruce Macgregor**
Chief Administrative Officer

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Attachments (4)
Private Attachments (1)
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