Tecumseh Digital Strategy

Final Report

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1.0 Version History

Version #	Date	Prepared By	Prepared For	Comments
1	2022-02-08	Perry Group	S. Fuerth	Initial Draft for comments
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5				

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2.0 Introduction and Context

2.1 Introduction

In 2022, over 94% of Canadians are on the internet, 88% of Canadians bank online, 71% of seniors are online, and in 2019 – pre-pandemic – 72% of Canadians had accessed a government program or service online in the previous 12 months.

For many, technology has become an essential way of getting things done – relying on their smartphone or laptop to book appointments or a trip, to make an insurance claim, to bank, shop, navigate, or connect with friends.

Increasingly, people want to interact with their government service providers in the same way that they make purchases or deal with their bank. In 2019, pre-pandemic, 68% of Canadians indicated a preference to access government services online. Think about your own recent interactions with ServiceOntario to renew a driving license or submit your tax return to the CRA and how much easier these processes are now that you can do them online.

In response to this increased expectation for online access to services and information, municipalities across Canada have been rapidly introducing digital services to streamline service delivery and make customer experiences better. In Innisfil, a resident can click on or pin a specific geo-coded location on a map when reporting a problem or service request. In Georgian Bay, a customer can make a variety of payments through a single access point. In Parry Sound, a resident or builder can submit their permit application online and follow its status through the online portal. These are just a few examples of municipalities moving towards more digital services.

In Tecumseh, some positive progress is being made in the right direction – an enhanced website, PlaceSpeak for community engagement, online program registration, and several opportunities for online forms have all been recently introduced.

Today, technology underpins many of the critical things the Town does – from booking recreation programs, to managing tax accounts, to managing human resources, to tracking and dealing with road maintenance projects – but there are many areas where paper-based processes continue to be used and should be replaced or enhanced to better leverage technology investments as well as meet the expectations of today's customer.

The Information Technology Services Review (ITSR), completed by Perry Group Consultants, in 2021, highlighted various opportunities to leverage technology and recommended the development of this Digital Strategy. The Town was successful in seeking support and funding through the province's Municipal Modernization Fund for this project.

The Town contracted Perry Group Consulting to develop this Digital Strategy as follow-on work from the ITSR. In addition to having this background knowledge of the current state of technology at the Town, Perry Group has conducted similar work for other municipalities, bringing knowledge of what has worked for others to the discussions.

2.2 Project Approach

The following chart shows the basic steps in the approach taken by Perry Group.

- Meet with project sponsor and team to clarify project scope.
- Gather background documentation.
- Discuss opportunities and barriers with SMT.

- Conduct all-staff ideation survey.
- Identify list of potential services for review.
- Council and community consultation.
- Conduct **DMM*** assessment.

- Identify Top 15 processes for digital delivery.
- Review and confirm IT Governance, and resources.
- Review recommendations.

- Develop a shared Digital Vision and supporting principles with SMT.
- Develop roadmap and draft strategy.
- Finalize and deliver Digital Strategic Plan.

* **DMM** = Digital Maturity Assessment.

Building on the material and information collected from the development of the ITSR, extensive consultation was conducted in order to collect and validate information through conversations with staff, Council, and the community through a variety of methods. Consultation included:

- Detailed consultations with the Director Technology & Client Services and the IT team to fully understand the complexity of the network and the different systems in use as well as updates on project status and concerns.
- Several workshops with the leadership team (SMT) to prioritize services best suited for digitization and to establish a shared Digital Vision and supporting principles.
- An ideation survey that was distributed to staff for their feedback in addition to ideas brought forward during the ITSR project.

- Workshops and consultation with Council.
- Online engagement with the community including a survey opportunity and an open house for ideation, prioritization, and knowledge-sharing.

Based on the inputs from all sources above, the consultants prepared a high-level current state assessment and high-level recommendations.

These consultations helped to identify the Top 30 business processes that could be a good fit for digitization. From there, the list was shortlisted to two key processes to undergo a detailed business process optimization review.

The current state or “as-is” process was fully documented and then the “to-be” or future state process was developed. These reviews were conducted with the teams from the business departments to ensure all components were captured but also to ensure the review documentation was understood and repeatable.

In addition to the process reviews and prioritization, the final analysis identifies the governance structure required as well as timing, budget, resources, and any other potential impacts in order to develop the full roadmap and Strategic Plan.

2.3 Context

2.3.1 Responding to Changed Customer Expectations

Many municipalities are rightly considering moving services online because customer expectations have changed. Not only has COVID reduced the desire for personal interactions and shown how offering services digitally can work, but the reality is also that many citizens today rely on their devices as a way of life.

One of the central concepts that has powered the internet revolution and positioned the internet as the world’s primary customer service platform, is **self-service**. Today, customers can use the internet to answer questions, to book a flight or tickets to a show, to file taxes, to request a new driving license or apply for a passport – why not to access and use Tecumseh’s many services?

It is important to note that, as the Town introduces more online services, it does not mean it should stop offering services via existing methods or channels. Customers should still be able to call or drop into municipal offices to carry out a transaction, to seek advice, submit an application or pay a bill. The introduction of digital services can be offered as an additional option that customers can choose – and we are certain many *will* choose because of its convenience and ease of use – and one that will undoubtedly grow over time as the channel of choice for the majority.

There is the opportunity to transform the customer-facing and internal processes by applying digital techniques and technologies. It is possible to reduce how often customers must come into the municipal offices to make payments, to sign forms, to drop off drawings or to pick up a permit. The Town can proactively notify customers of what is happening with their requests, rather than customers having to contact staff to check up on progress or status.

Not only does delivery via the internet offer the ability for customers to self-serve and create capacity in the Town, but digital services are significantly cheaper for the Town to run as the table below illustrates.

Channel	Cost per Transaction (ServiceCanada)
Web / Online	$0.10
Phone	$4.00
Face-to-Face	$6.50

The results are consistent in their message: online transactions cost a fraction of phone or face-to-face transactions. The conclusion is that implementing online services and encouraging their adoption is an important way for the Town to reduce staff time processing requests and overall transaction costs.

What's more, the expectations of customers are also the expectations of staff who, just like customers, want to use digital technologies to help them be more productive and efficient.

Internally, there are various opportunities to automate and streamline high-volume back-office processes – such as payroll, expense management and invoicing processes – to improve collaboration on projects, and to enable mobile and field workers.

The Town will continue to support customers' preferred modes of interaction ensuring that no one is left behind. Moving towards more digital delivery does not mean other service channels are no longer available. The opportunity should always be available for the customer to click, call or come in to interact with the Town or access services. This Digital Strategy highlights the opportunity of self-service and digital delivery and, as such, it is important to recognize that digital can and will be the backbone for all service delivery, regardless of the channel that a customer uses.

Digital platforms must support the ability to deliver across *all* channels.

2.3.2 Pressures on Core Services

It is undeniable that over the last decade-and-a-half, the world has become increasingly digital and this past two years has only accelerated this growth. In response to the pandemic shutdowns and work-from-home protocols, there have been disruptive changes to all business models forcing many to embrace technology to simply maintain operations as businesses were forced to close their physical locations.

Technology was shifted into being a critical function and IT departments were no longer a supporting back-office service, but they became essential to new service delivery methods.

Effective municipalities rely on the combination of people, processes and technology working together in a synchronized way to deliver services to customers. Collectively, the digitized platform is the set of processes and technologies that work together to enable customers to interact with the Town, and to enable Town staff (customer-facing staff, back-office staff, or field crews) to manage processes and deliver services to customers.

The term “digitized” represents a move away from paper-based processes to electronic, online, workflow-managed, real-time processes. The term “platform” represents a common set of shared tools and technologies that connect customers and staff, and link together staff who support different parts of processes.

Threats and opportunities include:

- Delivering customer service that meets expectations.
    - With further restrictions from COVID-19, there is a need to ensure that customers can transact with their municipality through online services. This means the Town must change the way it is delivering service to meet the needs of its residents who, especially now, use online services as part of their day-to-day routine.
- Stretching scarce resources.
    - Resources are scarce in municipalities, as is funding. It has been proven that municipalities that utilize integrated systems – rather than manually keying in data – are able to utilize staff more efficiently to work on more value-added activities. The value of integrating systems is that there is “one version of the truth”. In other words, there is only one place data is entered and the system does the linkages between programs. Having good data is valuable to any organization, especially municipalities that manage many lines of business.

- Doing more with less.
    - Enabling mobility is a valuable step in moving toward modernization. For example, by deploying mobile building inspections software and enabling online inspection booking, the Town would see increased productivity of inspectors. Other municipalities have seen cost savings each year by enabling mobility in areas such as Building, Fire and Asset Management. Organizations that have implemented Work Management systems with mobile capabilities have seen a significant increase in productivity, in some cases seeing crews resolving up to 60% more work orders through supporting technologies.
- Using data to optimize services.
    - Municipalities are seeing savings using route optimizing technologies (as used by UPS and FedEx) to optimize patrols, inspections, and garbage collection routes. Integration of systems is a key component in being able to optimize services through data.
- COVID-19 and other infectious viruses.
    - Municipalities are working remotely and streaming Council meetings rather than having face-to-face interactions due to the changes thrust on them by COVID-19. Tecumseh provided this online streaming service through YouTube and eScribe that posts video as well as the agenda and minutes to the Town's website. Some municipalities are adopting this model as a permanent way of doing business, and this requires availability to broadband services that allow residents and staff to interact effectively and seamlessly. There will be more pressure on municipalities to implement solutions quickly and offer online services.

These are some examples, but new technology opportunities appear daily, and the speed at which new innovations arrive is accelerating. Municipalities need to be well-positioned to evaluate and implement those innovations that can add value.

Being an organization that can react and embrace new technologies as they become available – to deliver improved and evermore cost-effective services – is advantageous. Adaptation should become a core competency for any high-functioning municipal organization.

2.4 Acknowledgements

Perry Group would like to acknowledge and thank Tecumseh's staff, leadership, and Council as well as the community (who participated in the survey and open house) for their active participation and engagement, and for providing valuable insight to the development of this Strategy.

3.0 Digital Strategy

3.1 The Importance of this Digital Strategy

The ITSR noted that *Developing a Digital Strategy will assist the organization in identifying digital transformation opportunities with a "customer first" focus.*

Given the importance of technology and its role in delivering Town services – and particularly given the many competing demands of the municipal setting – a Digital Strategy is crucial. It should address questions that are fundamental to the Town's future success, such as:

- Are we doing the right things with technology and digital?
- Are we making the right technology and digital investments?
- Is our information technology environment properly managed, maintained, secured and able to support the clients?
- Is it cost-effective?
- What are our future business needs?
- Is our technology environment equipped to meet current and future business needs?

Critically, a Digital Strategy allows the Town to determine its strategic technology priorities and then set out the initiatives and activities that will be critical to supporting the Town's strategic business goals and objectives, and what supports will be needed to deliver on the priorities.

3.2 Developing a Digital Vision

In response to these changed expectations, the following section illustrates a more online-enabled set of services that the Town could offer.

In order to embrace the online opportunities, interacting with the Town needs to be easy, simple, straightforward, and designed around convenience – for customers and staff alike.

The following vignettes are provided to help illustrate the sort of solution this Digital Strategy establishes, and the potential for actual solutions that will be implemented.

On her way to work, Mary witnesses a minor car accident. A stop sign has been knocked over.

Mary pulls over, takes out her smartphone, takes a photo of the scene and uses an app to notify the Town of the problem. The request is received, automatically categorized, located, and recorded in the Town's Work Management system.

The Work Management system automatically dispatches the request to a crew in the area. The crew receives the request on a laptop in their vehicle. They proceed to the site and repair the stop sign. They track the time it took to fix the problem and input the labour, equipment and inventory used to carry out the repair and close the work order.

Mary immediately receives a notification on her smartphone that the issue has been resolved. On the way home from work, as she passes the scene of the morning's accident, Mary feels reassured that the Town is working hard and smart to keep citizens safe.

In the background, integrated technologies such as telecommunications, networks, mobile devices, and business solutions (e.g., Service Request software, Work Management, Geographic Information System (GIS), and Finance systems) are working in concert to allow the Town to offer simple access to services, and to alert and provide field staff with the information (asset records, maps, and drawings) they need to fulfill the work order. Processes are designed to make the end-to-end process simple to interact with for customers *and* easy for staff to administer.

Today, in Tecumseh, mobile devices are used only by some staff in Public Works and Parks. Some staff are still reliant on manually collecting and recording information. Expanding the use of mobile devices – especially those that are fully connected with back-end systems – would eliminate the manual work and would reduce delays caused by having to re-enter data into other systems or spreadsheets. This full end-to-end process would also reduce data entry errors and provide up-to-date information for managers and supervisors.

Jane has just moved into a new home in the Town of Tecumseh. She calls to inquire about setting up her tax payments via pre-authorized payment.

The staff member directs Jane to the sign-up available on the Town's website, shows her other services that she can access online, and asks "Is there anything else I can help you with?"

Jane proceeds to book her youngest child, Rachel, into dance lessons, finds out when her garbage collection day is and where she can pick up a new recycling bin, and arranges for a burn permit for her family (who are visiting from out of town to help with the move) – all in the one call.

Enabling staff to handle multiple transactions from different departments, reducing the number of times Jane has to call the Town and saving staff time, does not happen by accident. It must be planned, processes must be designed, and systems implemented and integrated to allow agents to provide answers to commonly asked questions and to route requests to the appropriate back-office team, as needed.

Marsha lives in Windsor and is building a new home in Tecumseh.

It's difficult for her to get up to the municipal office, so she submits her permit application online, pays her fees and submits the drawings. A few adjustments are required by the CBO and Marsha has her architect make the changes and submit the revised documents online.

With some key work done on site, Marsha books an inspection of the work. The building inspector visits the site and uses their tablet to record the results of the inspection. The inspection passes, Marsha and her contractor are notified by email of the outcome of the inspection and work on site continues.

With each interaction, customers are offered choices about how to interact with the Town.

Each interaction leaves a lasting impression of how effective the organization really is.

The discussions through the Discovery phase of the project indicated a strong interest in opportunities to significantly improve customer experiences through the implementation of digital technologies. As part of the development of this Strategy, consultation with the community reinforced the message that demand is high for online services.

Management and staff across the Town voiced the need to digitize current manual, paper-based processes as well as modernize the tools they use daily. The Town's workforce should be fully empowered by technology, providing them the ability to work remotely, use data to make better decisions and spend less time on administrative tasks that could be digitally automated.

The Digital Strategy identifies the opportunity to take advantage of the internet and smartphone era and the associated technologies available to support Tecumseh's goal to improve service delivery as well as internal processes – to move to a self-serve, digitally-powered service model that uses data to support continuous improvement.

In doing so, the Town can:

- Offer more convenient services that meet customer expectations.
- Build customer trust.
- Effectively scale its services as its community continues to grow.
- Increase front- and back-office and mobile worker efficiency and productivity, freeing staff for higher value-add work.
- Improve recruitment and retention (by providing a flexible, modern workplace).
- Improve its stewardship of its asset portfolio.

- Reduce the overall cost of service delivery.

To continue to build on the goals set out in the ITSR, the Digital Strategy defines a new Vision for the importance of technology and the role digital plays in service delivery. The Vision for the Town's Digital Strategy is:

At your service, better access to Tecumseh in a digital world.

This Vision encapsulates several important concepts:

- That services are still the core of what the Town is all about.
- That the Town intends to continue to improve and enhance service delivery through digital means.
- That providing access to all in a fair and equitable manner is a top priority.

3.3 Establishing Digital Principles

Supplementing the Vision, guiding principles provide a broad philosophy to guide decision-making, help focus efforts and align thinking across the organization as services are re-designed. The following guiding principles are intended to focus on digital service delivery and the technology to support it. The principles should be regarded as a starting point and tested and reviewed through iterative use.

3.3.1 Digital Service Delivery Principles

- **Self-Service** – In most cases, the customer should be able to self-serve (digitally), meaning the customer should be able to get information and carry out transactions without needing to speak to anyone.
- **Customer-First By Design** – Processes and services will be designed to be customer-centric with a customer-first focus.
- **Easy to Find** – The customer should not need to know about the internal structure and organization of the municipality to access services.
- **Anytime and from Anywhere** – The customer should not need to visit a Town office to access a service unless a physical interaction is central to the delivery of the service.
- **Frictionless** – The customer should not have to contact the Town to check progress and account history in relation to a request.
- **Safe** – The customer should not need to worry about the safety or protection of their personal information.

- **No Barrier** – Barriers shall not prevent customers from accessing services – all customers are entitled to receive eligible services equally.

3.3.2 Digital Technology Principles

- **Collected Once** – Information should be captured and stored once and reused many times to remove the need for asking the customer the same information in different business processes.
- **Has a Purpose** – Information must be business relevant and have value. Only information required to fulfill the service should be requested from the customer.
- **Managed as an Asset** – Information will be treated as an asset and managed accordingly, with clearly defined ownership, accountability, responsibilities, and a defined lifecycle.
- **Best Managed in Electronic Form** – Information that staff need to serve customers must be held in electronic form as other forms make it too difficult to retrieve the data in a reasonable timeframe.
- **Applications and Platforms are Implemented Around Services** – All efforts are made to automate end-to-end service(s) delivery to customers from a single application or platform.
- **Open** – Open standards and methods should be adopted in preference to proprietary solutions for integrations.
- **Reusable** – Re-use integration patterns, connectors, and out-of-the-box integrations, where possible.
- **Secure** – "Information security" is a paramount consideration in designing technology solutions.
- **Resilient and Available** – Resilience and availability are built into the solutions so that our customers can access services when they need to.

3.4 Guideline for Good Digital Practices

The digital services that will be developed should be designed for customers and from their perspective, not the municipality's.

They should be consistent, user-friendly and of high quality. When re-designing business processes to digital services, it is important to be clear about what the expectations are for new services and for what digital services should be.

The following are two examples of standards that can be applied as guidelines as Tecumseh assesses existing services, improves digital services, and develops new digital service processes.

3.4.1 Ontario's Digital Service Standard

As an example of digital service standards, the Government of Ontario has developed a Digital Service Standard that sets out the following 13 points:

1. Understand users and their needs.
2. Establish the right team.
3. Be consistent.
4. Design the service from start to finish.
5. Ensure users succeed the first time.
6. Test the end-to-end service.
7. Make it accessible and inclusive.
8. Be agile and user-centred.
9. Use open standards and common platforms.
10. Embed privacy and security by design.
11. Support those who need it.
12. Measure performance.
13. Be a good data steward.

Find out more at https://www.ontario.ca/page/digital-service-standard.

3.4.2 Digital Service Standard

The Good Service Standard (developed by Lou Downe, a former staffer at the Government Digital Service in the UK) provides simple and digestible advice about how to build services that work.

Ms. Downe has identified 15 principles of good service design and provides training on how to use and employ them.

Good Service Design

15 Principles of Good Service Design – Lou Downe A good service…
1. Is easy to find.
2. Enables each user to complete the outcome they set out to do.
3. Clearly explains its purpose.
4. Sets the expectations a user has of it.
5. Works in a way that's familiar.
6. Requires no prior knowledge to use.
7. Is agnostic of organizational structures.
8. Requires the minimum possible steps to complete.
9. Is consistent throughout.
10. Has no dead ends.
11. Is usable by everyone, equally.
12. Encourages the right behaviours from users and staff.
13. Responds to change quickly.
14. Clearly explains why a decision has been made.
15. Makes it easy to get human assistance.

The Town should use this framework to be clear about what is expected of a good digital service and the Good Service Standard Scale is a tool that the Town can use to evaluate and assess its current and future digital services[1].

When building new digital services, it is recommended that the Town adopt a Digital Service Standard.

3.5 Digital Discovery Input and Engagement

This Digital Strategy – developed based on various inputs including engagement with the public, Council, and staff – builds on the IT Service Delivery Review and technical assessments, other relevant Town initiatives, documentation, and relevant analytics.

3.5.1 Engagement

Following a kick-off with Senior Leadership Team to discuss strengths, opportunities and barriers, the project team solicited input through "TecOnline – A Digital Strategy" on Tecumseh's PlaceSpeak page, a Digital Strategy Survey and the TecOnline Virtual Open House; additional input was gathered through a Special Meeting of Council and a staff "Suggest an Idea" forum.

While different audiences, the primary focus was to solicit feedback and understand demand for digital services in Tecumseh, opportunities and suggestions, and potential challenges for digital service delivery.

From a public perspective, there is clear support for expansion of online and digital services. Simple self-service access, a customer portal, being able to see service request information online, easy information enquiries, and making online payments were some of the highlights.

Regardless of the desire for online services, caution was also raised to ensure that alternatives were available for those who either didn't want to or couldn't access services online – accessing real people and ensuring in-person services are available remains important.

From a staff perspective, fully digitizing services (reducing the paper), making information available online, staff self-service, providing staff collaboration tools, and training were identified as highlights.

Full results from the engagements have been provided to staff.

[1] Note that the Good Service Scale can be used to assess non-digital services too. More information is available at https://good.services/.

3.5.2 Building on the IT Service Review

Creating a Digital Strategy was a recommendation identified within the IT Service Review.

"The focus of the ITSR has been IT structure and foundations to succeed moving forward. Developing a Digital Strategy will assist the organization in identifying digital transformation opportunities with a "customer-first" focus".

The ITSR went on to identify key areas of concern from a digital perspective:

- Delivering digital to match customer expectations for service delivery and anticipate increased demand for digital service channels.
- Back-office processes must be digitized so that staff can manage workflows digitally.
- End-to-end digitized business process work is needed in numerous areas.
- Enabling the digital workforce.

The ITSR also provided assessments of Tecumseh's technology (MTM – Municipal Technology Model) and availability of online services for the public and staff (MOSA – Municipal Online Services Assessment), plus a project list for technology-related projects. Tecumseh has already engaged in many of those initiatives to improve the technology state of the organization. This Report will serve to enhance the elements of the ITSR from a digital perspective.

3.5.3 Connection to Other Town Initiatives

The Digital Strategy work also incorporates and is complementary to other recent (and planned) Town initiatives.

- **Organizational Review** – The Digital Strategy will be based on the new functional model for the organization and utilizes the service model defined within the review.
- **Payroll Process Review** – Addresses a key process automation and identifies technology requirements.
- **Clerks Service Review** – Identifies service and process requirements and will recommend opportunities for digital improvements.
- **Citizen Satisfaction Survey** – The results from the last Citizen Satisfaction Survey were reviewed for public demand and input to service needs.
- **Records and Information Management Review** (future initiative) – The records strategies will provide a better definition of municipal records and information requirements. Knowing this work will occur helps to position the Information Management recommendations of the Digital Strategy.

3.5.4 Additional Input for Digital

A key additional input for the Digital Strategy has been reviewing the web analytics from www.tecumseh.ca to better understand customer insights and usage. In 2021, tecumseh.ca had over 226,000 web sessions (note, tecumseh.ca does not include traffic to ACTIVE Network, the program used for recreation program registration, facility bookings, and memberships which would greatly increase overall site traffic).

Web Analytics

The pages receiving the most online traffic included:

- Webcams.
- Employment.
- Garbage and recycling.
- Things to do (arenas, pools).
- Contact Us.
- Covid-19.
- Council.

Of the web sessions:

- 49.25% mobile, 46.45% desktop, 4.3% tablet.
- Apple mobile devices were used over 65% of the time.
- Chrome and Safari were the primary browsers used, accounting for over 81% of access. Internet Explorer accounted for 6.66%, and MS Edge, 4%.
- Just over 80% of the site use was from within Canada.
- Site searches yielded results 99.4% of the time – the most common searches on tecumseh.ca were for alarm registrations, mapping, yard waste, and taxes.

3.6 Digital Maturity Model

3.6.1 Tecumseh's Digital Maturity Assessment

The Perry Group Digital Maturity Assessment looks at a municipality's digital maturity in three *Focus Areas*:

- **People** – Humans should be at the centre of digital transformation.
- **Process** – Processes power services and are how we get work done.
- **Technology** – Technology enables digital services.

Each *Area* contains numerous *Factors* that are rated between 1 (non-existent to limited) and 5 (industry-leading).

The Digital Maturity Assessment helps a municipality identify what its current level of digital maturity is as well as what it strives for its target state to be. It can easily be used as a benchmark for tracking, measuring, and reporting on progress against the defined targeted levels of maturity. It can also be used to monitor improvements over time.

The results of the Digital Maturity Assessment and Progression help to clearly delineate the stages of progression and what each stage means to the end user.

The consulting team, in association with Town staff, conducted the assessment and evaluated the 40 Factors across the three Focus Areas.

Tecumseh scored 2.46 on the assessment, placing the Town in the “Early Experimenter” to “Digital Accelerating” levels. The People and Technology Focus Areas had the strongest scores, and the Process Focus Area lagged.

Focus of the Digital Strategy should shift the level to elements of Digitally Accelerating/Digitally Transforming as illustrated in the figure below.

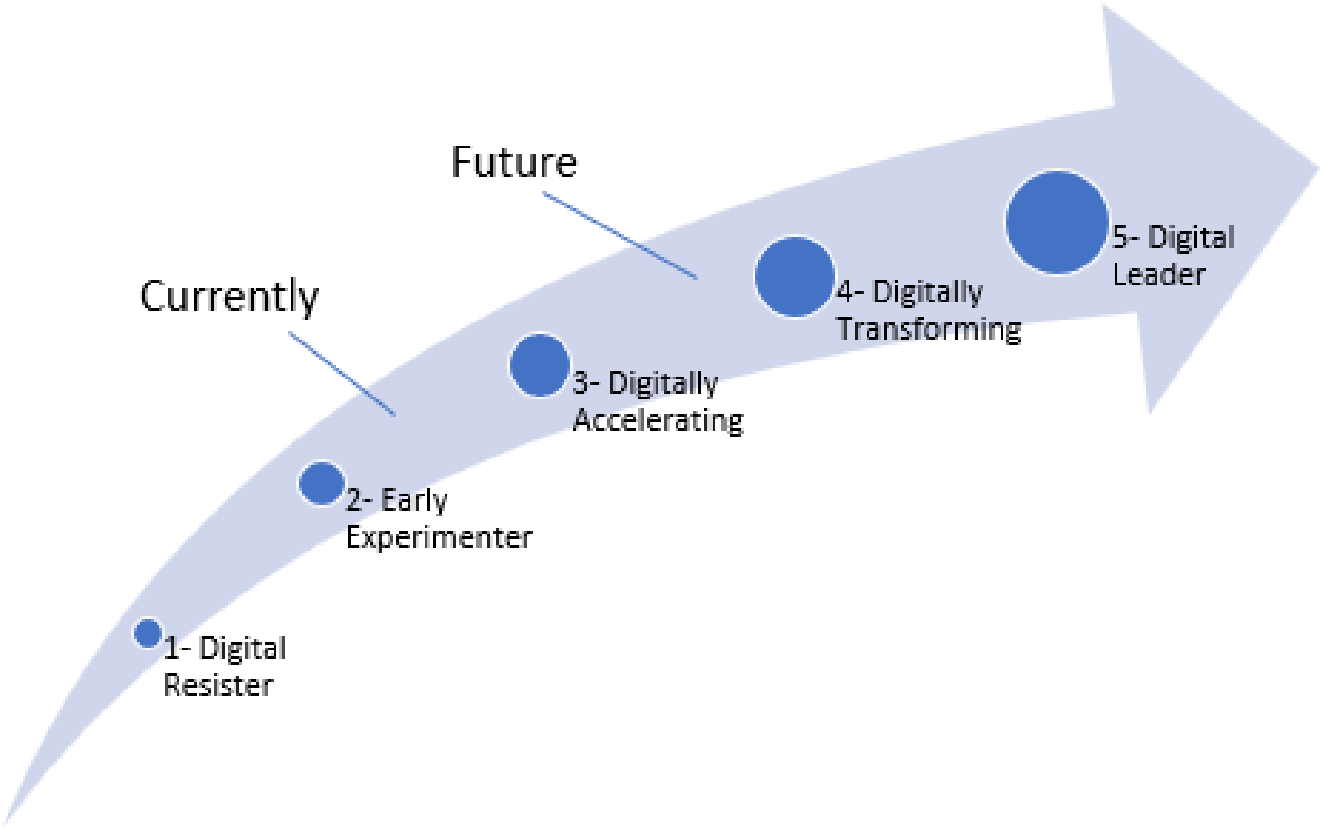


Figure 1: Digital Maturity Assessment

3.6.2 Key Areas Requiring Digital Attention

This assessment highlights key areas requiring digital attention that will be supported through the Digital Strategy including:

- Implementation of a Digital Strategy and appropriate oversight.
- Delivery of digital services in a consistent and repeatable manner.
- Cataloging digital services and monitoring performance.
- Improved digital literacy and training programs for both staff and public.
- Process reviews and ensuring end-to-end optimization of existing services.
- Implementation of a core Technology Strategy including ERP (enterprise resource planning) technology.
- Improving integrations and data management.

3.6.3 Characteristics of the Five Levels of Digital Maturity

The table below summarizes what the general characteristics are of each of the five Levels of Digital Maturity:

Level 1 – Digital Resister	• No leadership, vision, or strategy on digital along with an absence of governance and business strategies. • There are few digital skills within the organization, which is typically unengaged, traditionalist and uncollaborative. • Business focus is not citizen-centric and the approach on customer service is divergent and siloed between areas. • Corporate systems are absent or utilized < 10% leaving siloed areas largely reliant on inefficient manual workflows. • Digital service is hampered by an anti-Cloud position with an overburdened IT acting as an “order taker”. • Data is looked at for compliance purposes rather than as an asset that can be leveraged for efficiency and service delivery.

Level 2 – Early Experimenter	• There is some visioning around digital but there are competing views between service areas. • There are small pockets of digitally-skilled, tech-savvy staff, but they are largely unguided and unconnected – digital is explored off the sides of their desks. • Culture is skeptical of change and project management is disconnected from corporate objectives and strategy. • Core business solutions are in place but are outdated; there are some digital tools, but they aren't fully leveraged or integrated as decisions are made by service areas directly. • There are some collaborations between keeners in each area, however, notions of digital differ widely. • There are no corporate standards, practices or resources in place to support ideation and leverage digital tools already in place.
Level 3 – Digitally Accelerating	• Governance is in place to align digital and business strategies with guidance from corporate policies, standards, and a service inventory. • Recruitment and training efforts have some focus on increasing digital literacy and collaboration is ad hoc but occurring (internally and externally). • Core high-volume, cross-corporate processes are fully digitized end-to-end and if digital tools are not deployed, staff are finding and using their own to make work easier. • Agile approaches are used to support small and niche implementations and key digital platforms are in place but lack integration and consolidated value. • Current technology architecture is mapped but some key systems and infrastructure are delaying growth of digital. • Digital processes and use of agile are designed to be repeatable; slowly scaling out and data analysis is assisting some areas in making better decisions.

Level 4 – Digitally Transforming	• Senior leadership and Council are formally behind digital transformation with alignment to strategies, talent recruitment and training. • Digital is embedded into business planning and service channels are used to index improvement projects delivered through agile delivery and followed up by quality audits. • There is active engagement and collaboration with community and industry partners along with a 360° view of customers with a mission to exceed service standards/expectations. • An architecture function guides evolution of the technology landscape along with data governance and Cloud adoption. • End-to-end processes are fully digitized and core systems are current, well-utilized and managed as products vs. projects. • Customer profiles and predictive service delivery are used through some integration of web, a digital platform, and a Customer Relationship Management (CRM) – not employing all capabilities but priorities are reviewed to support forward momentum.
Level 5 – Digital Leader	• Digital is the mantra of the organization driven by aligned leadership and governance, focusing on the "art of the possible" vs. digital transformation. • Experimentation, collaboration, and coproduction *are* business as usual, and all areas employ a design-thinking approach to meet and optimize service standards. • Digital inclusion opportunities are made available through community partnerships and customers are actively involved in shaping/prioritizing how service is delivered. • Modern, digital, and mobile platforms in place evolve alongside defined architecture and a roadmap that standardizes digital/Cloud/data-first. • Digital service channels are supported by web and CRM which provide predictive service to citizens and are improved using aggregated service data. • Business processes are geo-coded, IoT-based infrastructure is the norm and machine learning/AI is employed to make work more efficient.

3.6.4 Tecumseh's 40 Factors Scoring

Scoring for Tecumseh on the 40 Factors is outlined below.

Tecumseh's score for Overall Average = 2.46.

People Area Average

Factor	Score
Corporate Leadership	5
Digital Vision	2
Digital Strategy	1
Digital Leadership	3
Digital Talent	3
Digital Literacy	2
Digital Governance	2
Organizational Alignment	2
Workforce Readiness	4
Digital Culture	2
Community Involvement	2
Industry Partners	3
Know Your Customer	3
Community Digital Inclusion / Literacy	2
People Area Average	**2.57**

Technology Area Average

Factor	Score
Architecture	2
Applications / Business Solutions	4
Mobile	3
Collaboration	2
Customer Digital Experiences	3
Staff Digital Experiences	3
Web Platform	3
Digital Service Platform	2
CRM Platform	3
Cloud	3
Social	3.5
Data	2
Analytics	2.5
Geo / GIS	3.5
Connected Things (IoT)	1
Artificial Intelligence/Machine Learning	1
Networks (Private, Public, Community)	4
Technology Area Average	**2.68**

Process Area Average

Factor	Score
Service and Process Inventory	2
Service Standards	2
Process Maturity Assessment	2
Process Design Capability	2
Process Digitization	2
Agile Methods and Approaches	1
Technology / Digital Training	2
Change And Adoption Management	1
Modern Procurement	3
Process Area Average	**1.89**

4.0 Building Digital for Tecumseh – Areas of Focus

In consideration of the digital engagements, inputs and assessments, the following section outlines the **what** of the Strategy – following the Areas of Focus, the major projects and tactics that form the digital roadmap.

1. **Digital Service** – Modernizing the customer experience and providing the services customers are looking for through the channels on which they would expect to receive them.
2. **Digital Workspace and Collaboration** – Enhancing the staff environment.
3. **Data and Architecture** – Importance of data, integration, and the building blocks.
4. **Modelling Digital Services** – Services and process transformation.

The following sections explain each of these Areas of Focus in detail.

4.1 Digital Service

Modernizing the customer experience and providing the services customers are looking for through the channels on which they would expect to receive them.

Modernizing the customer experience is about meeting the customer needs through providing digital services that are convenient and accessible for all. For digital initiatives to succeed, the customer needs to see value in using the service; it needs to be convenient and meet expectations. While the experience for municipal services doesn't require the same competitive advantages that drive private sector sites, the expectation for similar service experience is created.

Customers expect self-service – to be able to sign into a site and see transaction history; they expect emails (or texts) to acknowledge services; they expect that, wherever possible, the transaction can be completed entirely online and when the transaction needs to shift channels (such as to a customer service representative), that person is familiar with their request and has access to the account history.

Governments are unique as web entities in the variety and scope of services they provide, and in the relationship to customers. Not all the techniques that are applied in the private sector can be applied to the municipal environment, however, many municipalities are starting to provide better customer-focused service delivery through improved online experiences.

For instance:

- Citizens in Guelph, Waterloo and Cambridge can submit and track building permits and drawings online.
- Burlington staff and management handle their time and attendance processes via an employee app.
- Barrie residents monitor their water consumption via an online dashboard.
- In Innisfil and Richmond Hill, reports of a stop sign being knocked down are directed automatically to the relevant field crew's mobile device for resolution.
- In Oakville, people can search and review planning applications and associated drawings online or lawyers can generate their own tax certificate online.
- Brampton and London Fire Departments use GIS to identify hot spots, focus their fire prevention and education work and reduce risk and loss in their communities.

Communities throughout Ontario are using technology in many ways to provide innovative and cost-effective customer service.

4.1.1 Contributing to the Customer Experience in Digital Services

Several factors contribute to successful customer-focused digital services including:

- **Customer-centric Design** – Build services based on the wants, needs, and challenges of your customers. Tools such as journey mapping and customer personas help shift the focus from department to customer.
- **User Experience Design** – While akin to customer-centric design, user experience design (UXD) provides the specification for how the customer will be guided through the service and specification for styles, templates, and formats within the interaction.
- **Understand the Customer** – Services need to be focused on the needs of the customer, and that starts with an understanding of the customers you are serving. As illustrated in the figure below, a municipality has many different types of customers with varying perspectives and needs. Digital service provision should be driven by demand and adjusted accordingly. Use data from various sources to better understand the customer (such as web analytics, feedback, and engagement).

Residents	Business	Special Interest
• Household composition. • Rural residents. • Homeowners/tenants. • Demographic segmentations (e.g., seniors, youth, etc.). • Indigenous persons. • Vulnerable populations (social, economic, health, etc.). • Future residents.	• Business owners/BIA. • Agricultural. • Tourism industry. • Economic development. • Property developers (large and small). • Construction and contractors. • Real estate.	• Government sector (municipal, county, provincial). • Regulatory agencies. • Conservation authorities. • School boards. • Healthcare. • Emergency services. • Social services. • Community groups. • Tourism.

Figure 2: Customer Profiles

- **Self-service** – Customers are going online for the convenience. By providing self-service options, the experience provides the customer with the choice of how to interact with Tecumseh, ensuring an end-to-end transaction with a consistent customer experience.
- **Customer Portal** – Portals can range in complexity from a simple landing page with links to various online service offerings, to more feature rich portals where the customer can log in through a Single Sign On to access all their services, see transaction history, and manage their relationship with the municipality.
- **Personalization** – Personalization is about having a site provide more relevant information to enhance the customer's experience. The most common methods of personalization are user preferences, use of cookies, and location-based services. Preferences can be associated with a user account or simply an email and often involve selection of services, such as when to receive notifications, subscriptions, or information to display. Location-based services provide the ability to give results relevant to your location either automatically by identifying your location, or manually by inputting information (such as a postal code). Perhaps the most common personalization feature is the use of cookies. Cookies are a means by which a site captures and retains certain information relevant to your browser session and in most cases, future site visits. You should always be presented with the opportunity to accept or decline cookies. Most common, these files maintain information on your site preferences, form information, location services, or keep you signed in.

- **Digital Inclusion and Accessibility** – Online and digital services need to be in compliance with AODA standards. Not only is it a legislated requirement, but a good practice regardless. Beyond AODA, digital inclusion is about identifying barriers in the community to accessing services (as shown in the figure below) and developing a plan to reduce/mitigate access challenges. Equally, it is to recognize those who do not want to use digital channels and ensuring alternative service channels are available. Residents should always feel welcomed in their interaction with the Town.

Figure 3: Barriers to Online Services

- **Digital Engagement and Feedback** – Developing a customer-centric design involves knowing the customer. Digital engagement tools (such as PlaceSpeak) provide the opportunity for the community to provide feedback in a structured channel. These tools can also provide opportunity, not just for feedback on current initiatives, but as a forum for unprompted community input (such as with barrie.uservoice.com), suggestion, and innovation. Providing feedback options at the end of transactions and embedded to the website also provide input. An important factor with all of these is to ensure that input is reviewed, and action is communicated.
- **Social Media** – Twitter, Facebook, and YouTube have become a common component of most websites as communication channels. Social media channels are an extension of corporate communications and should be treated with the same care and inclusion in communication strategies and procedures. Internal training should be provided to any staff responsible for posting to these channels.

- **Channels for Delivery** – Many service delivery channels are available, as shown in the figure below. The Town should provide channels that customers will use, and that you can ensure consistent service delivery through. Not all channels are required for all services, but if the channel is only used for certain services, it needs to be clearly articulated to the customer. Introduction of digital services does not mean that traditional access channels will be neglected. It is important to acknowledge that, while the Town's focus on digitization drives the ability to deliver online services, it also supports improvements to phone or face-to-face services. The Town will, of course, continue to offer services across many channels (web, phone, face-to-face) to meet the needs and expectations of its citizens. Digital platforms must support the ability to deliver across *all* channels that are made available. Two terms – multi and omni-channel – are often used in relation to digital services. Multi-channel is provision of a service across channels, whereas omni-channel usually refers to the ability to shift seamlessly between channels and receive the same level of connected service.

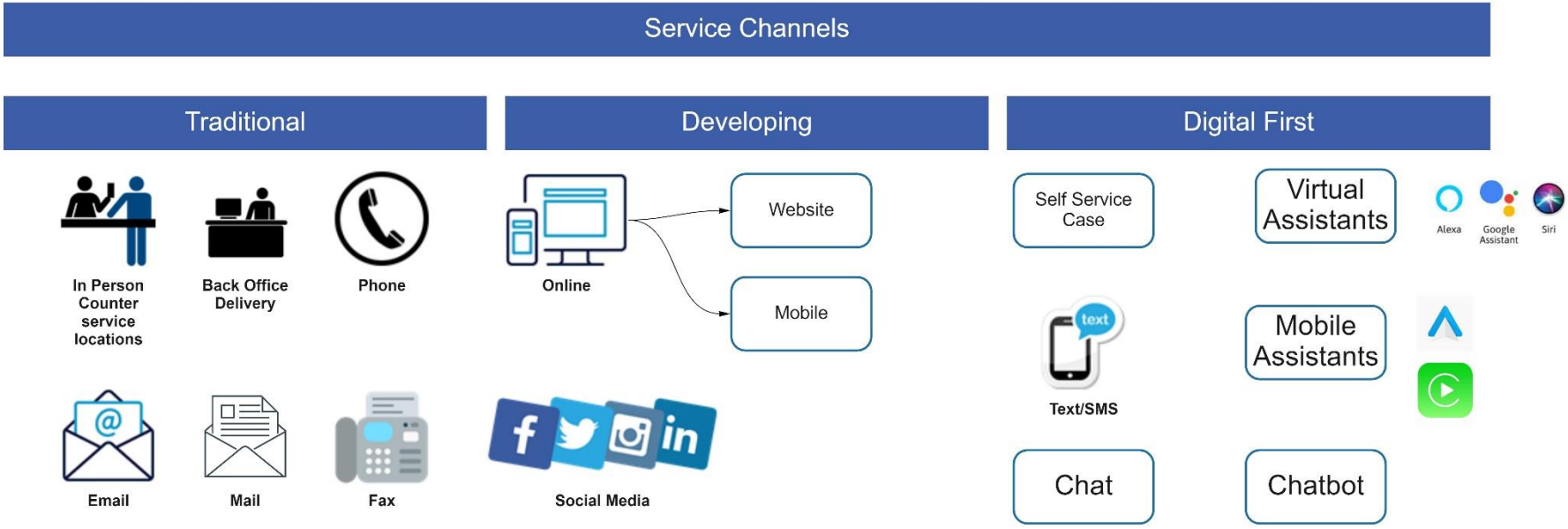


Figure 4: Potential Service Channels

- **Staff are Customers as Well –** The staff interaction with the digital service in the back-office will impact service delivery. Providing staff with a good experience as part of digital delivery, improves the overall quality of service delivery. Additionally, many staff are also customers of the municipality, able to provide quick feedback and input to service improvements.

4.1.2 Current State

Currently, Tecumseh provides several services online primarily through tecumseh.ca and Get in Motion (for event, activity and program registration). Overall, for the customer experience, the site is responsive (changes dynamically based on device and or form factors) and features quick access to primary features including accessibility aids (ReachDeck and font adjustments), Search, and Connect options.

The “I Want To” header navigation item provides simple and easy access to a page (shown below) with access to many of Tecumseh’s online services such as:

- **Forms** – Depending on the service, forms are either online fillable (Report an Issue), non-fillable PDFs (Application for a Permit to Construct or Demolish), or fillable PDFs (Open Air Burn Permit). Layouts are not consistent.
- **Customer Accounts** – It is currently possible to have six different accounts with Tecumseh including accounts for recreation programs, property tax information, Bids & Tenders, PlaceSpeak, employment opportunities, and water billing. Additionally, email subscription services are available for notifications and alerts.
- **Payments** – Online payments can be made in association with the recreation registrations and the FormBuilder online forms. Neither directly integrate into the back-office financial system.
- **Channels** – Currently, services are provided primarily through traditional channels, with some service online and through social media.

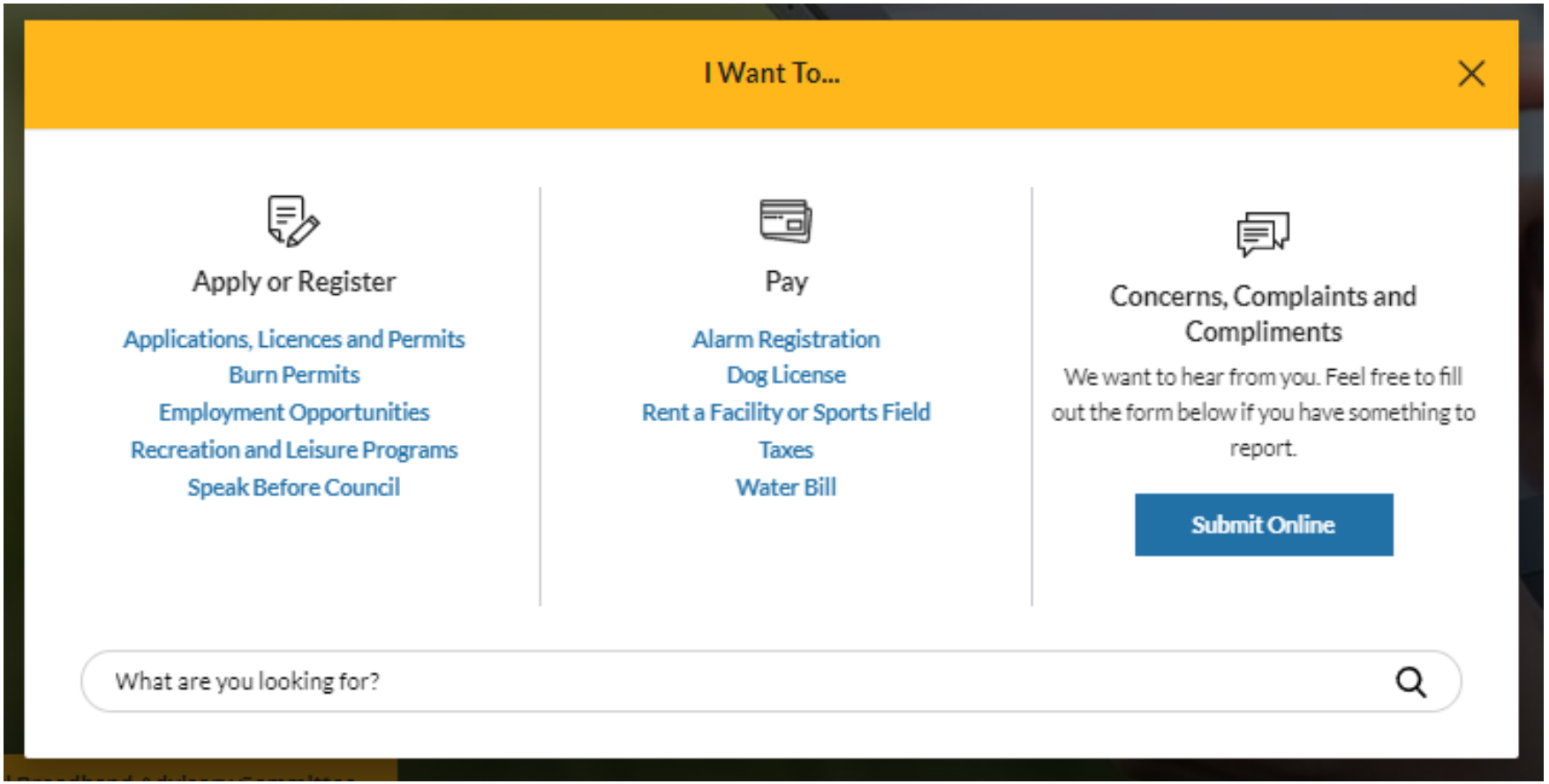


Figure 5: "I Want To" Page on Tecumseh's Website

4.2 Digital Workspace and Collaboration

Enhancing the Staff Environment.

Creating a digital workspace is about ensuring that staff have the right technology in place to complete their work and collaborate effectively.

The digitized platform is centred upon a powerful central core of business systems (e.g., ERP, CRM, Work Management, Permitting, Licensing and Land, Recreation Management) that drive large parts of the Town's operations.

The business systems used by the Town should be common and shared across departments so that tasks initiated in one area can be allocated to another, such as a change in a permit application status (in Building) triggering the processing of a pre-approved payment (in Finance).

This ties in another concept of digital – allowing staff to work in the most appropriate application through the use of integrations. The customer may use the "Report an Issue" form (eSolutions) online, but staff should be able to view and work with the request in Cityworks on the back-end.

The full digitization of processes provides the foundation for becoming an efficient organization that can deliver great services, digitally-powered.

When processes are digitized and managed electronically, all necessary transaction processing – workflows, notifications, quality checks and validations – can be carried out via a device, and can happen anywhere, anytime (in the office, at a work site, in a truck at the side of the road, or at home).

Offline steps (manual interventions such as checking a paper file or getting a physical signature) are reduced or eliminated. The online chain provides complete visibility of the process throughout the organization – anyone can check the status or find out required information.

Systems manage the routing and workflow of the processes, including escalating items to senior staff when exceptions are encountered or where performance falls below defined levels of service.

Staff are not only able to complete work for customers, but digital experiences are extended to staff as well – through automated processes and staff self-service portals – such as for time and attendance tracking, and submission of expenses.

Collaboration is the key to any successful digital workplace. Staff require the ability to connect, share information and collectively co-create using modernized productivity tools, document and knowledge management, project and meeting management, and enterprise social networking capabilities (chat/video/white boards/team pages, etc.)

Current State

In reviewing core platforms for digital delivery, Tecumseh's back-end systems require attention – with limited integration, workflows, and automated processes in place.

In most cases, Tecumseh already has the necessary technology solutions (such as GIS, ACTIVE Network, Cityworks), however, they require attention to digitally optimize. Where there are technology gaps, staff were already aware of these challenges and, in many cases, budgeted initiatives have already been identified (M365, financials).

Emphasis of the Digital Strategy will be to minimize additional technical debt through identifying opportunities to re-use existing systems before buying new and through the development of standards to focus attention on architecture, integrations, and connectivity.

Revisiting Core Systems From a Digital Perspective

Core Functionality	Application	Digital Status
Web Platform	eSolutions	Utilizing for web content and publishing, forms, procurement, and job postings. Form capability exists and has been utilized, however, back-end systems do not exist to receive data. No integrations exist to financial system.
CRM (Customer Relationship Management)	eSolutions/Cityworks	Service requests can be entered online through an eSolutions form "Report an Issue". Back-end staff can enter requests into Cityworks. The customer self-service module has been configured but has not been implemented. No common customer record is stored and in both eSolutions form and Cityworks, no automated workflows have been implemented nor is transaction history available to the customer through self-service.

Core Functionality	Application	Digital Status
GIS (Geographic Information System)	ESRI GIS	GIS information is available to the public and the Open Data project is underway. Some automated integrations are in place, however, there is no automated integration with core financials.
Financials (core)	Vadim	Requires the greatest attention. Beyond basic functionality, the system has limited integration into many of the other core systems for data exchange including Human Resources (HR) employee records, time and attendance, and payment information. System is planned for upgrade or replacement and budget exists.
Human Resources	Vadim	Requires attention, limited abilities for staff self-service and integration with Payroll for time and attendance. A business process review of time and attendance was just completed.
Property and Land Management Systems	Vadim CityReporter	Main building record stored in Vadim. CityReporter introduced in 2021 for inspections, but has not been fully rolled out, and currently not available for public self-service. Most input forms exist as PDFs on tecumseh.ca
Work Order Management	Cityworks	Utilized for work order management. Data inputted by clerks – limited self-service for other staff. Work order and status information not available for public self-service. Integration exists to GIS.
Productivity Suite	Microsoft (Office) Myhub (Intranet)	Initiative underway to implement M365 and associated features. Myhub intranet currently requires separate sign on – limited uptake.

Core Functionality	Application	Digital Status
Document (and Records) Management	Laserfiche, ConsignO, TOMRMS, Adobe Shared drives	Records management following TOMRMS; limited document management standards in place. Clerk's department will be initiating a review of records and information management later in 2022.
Council Agenda Management	eScribe	Implementation of M365 will assist in the automation issues with eScribe.
Recreation Management	ACTIVE Network	Registration, memberships, and room bookings are online for the public. Payment information is not fully integrated into financials. Daily reconciliation report automatically generated.

4.3 Data and Architecture

Importance of Data, Integration, and the Building Blocks.

The data, integration, and supporting infrastructure are the back-end pieces that enable digital services to work.

At the start of the Developing a Digital Vision section, an example was provided showing how integrated technologies such as telecommunications, networks, mobile devices and business solutions (e.g., Service Request software, Work Management, GIS, and Finance systems) are working in concert to allow the Town to offer simple access to services, to alert and provide field staff with the information (asset records, maps and drawings) they need to fulfill the work order.

Integrations determine how, what, and when data travels between technologies. The data is the information that we want to secure, to ensure is accurate, and be consumed by the supporting systems. Orchestrating this all into a plan that makes sense is the role of architecture.

4.3.1 Digital Architecture

Architecture is about defining and illustrating the requirements to achieve desired business and technical solutions.

The need for an IT architecture was identified in the IT Service Review, and in the case of Digital Strategy, the concept is being reiterated. Digital relies on systems working together and putting in place basic architecture principles will help ensure success and repeatability in introducing digital services.

Architecture is an area that many municipalities have difficulty implementing and some find intimidating – but it doesn't need to be. Taking a pragmatic approach and defining "just enough" architecture will go a long way.

At the core, a digital architecture should:

- Establish baseline standards for information and data, application and integration, technology and security domains that must be met when implementing digital solutions.
- Review proposals for fit to standards and establish a process for dealing with exceptions.
- Review how system changes or new solutions will impact the existing ecosystem.
- Set out lifecycle plans and roadmaps for key technologies.
- Maintain an inventory of technical and digital assets.

From an architecture perspective, Tecumseh maintains a list of technologies and has lifecycle planning incorporated into the annual budget lifecycle. Solution reviews are conducted on an ad hoc basis.

4.3.2 Integrations

Integration is the act of bringing together smaller components (capabilities, features, data) into a single system that functions as one.

In the IT and digital context, integration refers to the stitching together of different, often disparate, sub-systems so that the data contained in each becomes part of a larger, more comprehensive system.

Integrations provide the capability for end-to-end service automation and are critical to digital transformation success, allowing the exchange of relevant information between systems.

There are many methods and types of integrations available ranging from pre-built adapters or connectors and point-to-point data integrations to more sophisticated Enterprise Integration Application (EIA) platforms. The most common is hub and spoke and enterprise service bus (ESB).

More common in newer systems is the use of open and common standards for integrations.

During the IT Services Review, it was identified that limited integrations were in place and where integrations did exist, limited functionality was provided, however, it was suggested that there was a good opportunity within GIS to start building an integration plan.

As part of the Digital Strategy engagement, an integration mapping exercise was conducted with the Information Services team. The team mapped out current integrations of core systems identifying those where integrations existed and those where manual effort was required to exchange information between systems (either uploaded or re-entered).

The exercise confirmed that, while there are many opportunities to integrate systems, very few direct integrations are in place. Some highlights include:

- Tecumseh.ca (eSolutions CMS) has significant integrations including PlaceSpeak, ReachDeck (formerly BrowseAloud), payment processing, eScribe, AbleDocs, SiteImprove, Cludo, and Google Analytics.
- GIS is using some direct integrations with Geocortex, Cityworks, and the Open Data Portal, however, there is great opportunity to expand the integrations and there are many situations where data exchanges require intervention including AutoCAD, Everbridge (EssexPower), Ontario OneCall, CityWide and Vadim (through MS Access).
- Tecumseh currently has few integrations in place with the core financial system Vadim. Currently, Vadim is connected to CityWide, FMW, and CityReporter, however, as examples, no integration is in place for ActiveNet or to Bambora for payment processing from the website. On the current version, there is limited capability to integrate with other systems without significant effort. Tecumseh, in conversation with Vadim, has indicated a future roadmap is being explored for potential improvement opportunities.
- Master datasets are not formally recognized (see the next section on Data for explanation).

Additional information on integrations is being shared with Tecumseh staff supplemental to this Report.

4.3.3 Data

Data and digital transformation are intricately linked. If data is not actively managed, the overall utility of systems and information becomes less effective.

The growing reliance on technology solutions and the prospect of re-thinking how technology is used to fundamentally improve business performance has highlighted data management as a key capability for all organizations in the 21st century.

Next to people, data is now considered the most important asset an organization has. It needs to be fully leveraged in order to support empirical decision-making and utilized to monitor and improve internal processes and support service design.

Open government initiatives, along with greater public expectations around transparency, have clearly demonstrated the need to invest in a data program that provides easier access to information and a means with which to support better citizen engagement and participation.

Equally important, proper data management with system integrations can ensure that information is entered and maintained in single systems, and shared with other systems to ensure timeliness, efficiency, and accuracy. Often thought of as “master data”, systems or pieces of data are defined as the reference within a source system and that data is then shared with other systems through integrations. GIS is often considered a master data source for address information, an ERP for staff data, and CRM for customer data.

Part of data management will also be defining data classification to manage datasets throughout the organization.

As an illustration of how this may work, numerous systems at the Town need a list of employees but they all need the data in slightly different formats (e.g., Firstname, Lastname; Firstname and Lastname, First Initial and Lastname). The ERP can hold the Town’s master data for employees and, through integrations, the data is re-factored to support the various formats required.

Further, Cloud technology has expanded and allows almost any IT-related resource to be offered as a service. Taking advantage of these benefits requires that appropriate controls and risks are managed related to the Town assets, data, and property.

Currently, data standards are defined for GIS data, providing the opportunity for it to be considered the Property Master, however, not for Employee or Customer data. The Town also has a listing of Cloud service criteria, which aids in the assessment of Cloud service requirements and risk exposure. Further attention to the information management practices and, in particular, related to unstructured data will be conducted in the Records and Information Management Review planned for later this year.

4.4 Modelling Digital Services

Services and Process Transformation.

4.4.1 Process Review Approach

Municipal services are delivered through business processes. The business process defines the efficiency and the user experience of receiving the services.

It is important to look at the business processes to identify the opportunities to improve the services. While municipalities provide hundreds of services to their citizens, it is recognized that a review of all services is not cost-effective. The right approach is to select for review a sample set of services that resemble the vast majority of the services that are provided by the municipality.

The Town selected two of its citizen-facing services to be reviewed by the consultants. The Perry Group's Business Service Optimization (BSO) methodology was used to evaluate two sample services for Tecumseh. The methodology and its steps are depicted in the following diagram.

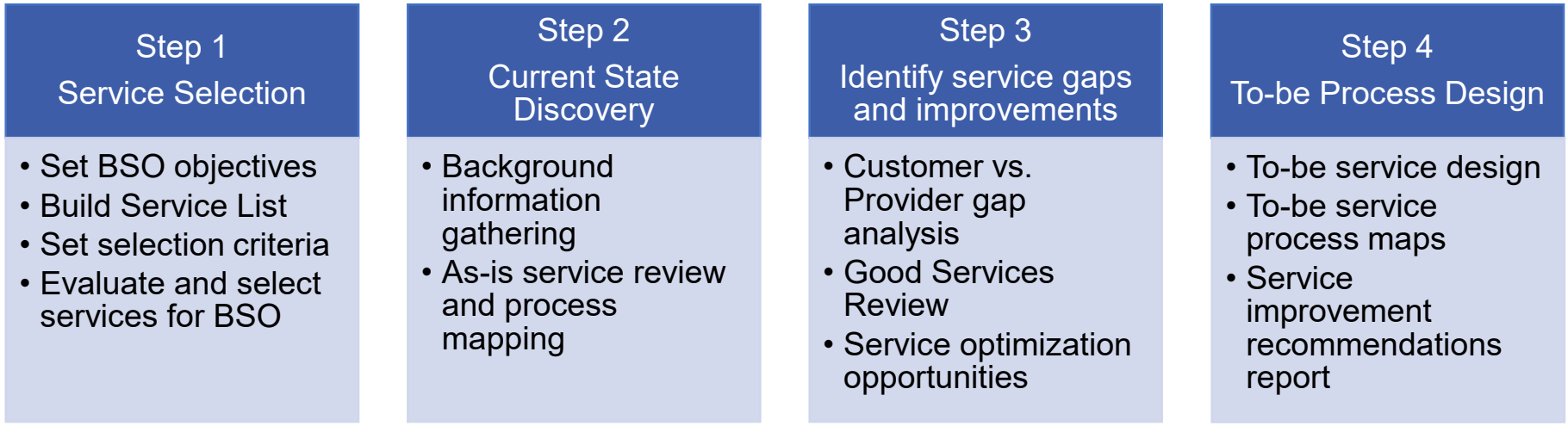


Figure 6: Business Service Optimization Methodology

4.4.2 Step 1 – Service Selection

Municipalities have hundreds of business services. In order to select which services/processes are to be reviewed, we need consistent criteria. The following list of proposed criteria was used to select the services:

- Annual transaction numbers.
- Most requested online services by citizens.
- Most requested internal services by staff.
- Benefit to customer/staff.
- Success rating.
- Readiness.
- Number of departments benefited.

The Senior Management Team (SMT) was consulted for the selection of most valuable services to be digitized. The Perry Group suggested list of services was shared with the prioritization criteria.

Based on the inputs, the following services scored 17 or more out of a maximum possible score of 21. A detailed score sheet is available in Appendix 4 – Service Selection Criteria and Scores.

Rank	Service	Description	Priority Score
1	Communications	External communications	20
1	Integrated Service Delivery	311/customer services	20
1	Utility Infrastructure Locating	Locates	20
2	Animal Registration	Animal licensing and adoption	19
2	Alarm Registration	Security and fire alarm registrations	19

Rank	Service	Description	Priority Score
2	Building Permission and Enforcement	Building permits	19
2	Financial Management	Procure-to-Pay (includes Accounts Payable)	19
2	Financial Management	Accounts Receivable	19
2	Information Technology Access	IT helpdesk services	19
2	Claims Management	Claim submission	19
3	Council Support	Council/committee meetings, agenda/minutes management	18
3	Development Approval	Subdivision, zoning, site plan, consent, etc. application process	18
3	Drinking Water Supply	Water connections, subsidy applications (backwater valve, drain disconnect, etc.) disconnections, meter reading and billing, bulk water applications	18
3	Emergency Management	Emergency declarations, communications	18
3	Human Resource Management	Recruitment (internal and external), onboarding, performance, benefits and pension, learning, exit management processes, contracts, legislative requirements (established under the Electrical Safety Authority (ESA) and Occupational Health & Safety (OH&S) as well as Workplace Safety and Insurance Board (WSIB))	18

Rank	Service	Description	Priority Score
3	Property Standards By-Law Enforcement	Property Standards/clean and clear complaints process	18
3	Taxation	Tax account enquiries, tax certificates, tax billing, etc.	18
3	Transit	Transit tickets, schedules	18
4	Asset Access	Asset service requests and work orders (including preventive maintenance)	17
4	Financial Management	Payroll	17
4	Fire Permission	Burn permits	17
4	Vital Rights Registration	Birth/death registration	17

The Town selected the following two services for the detailed review:

1. Building Permitting and Inspections Service.
2. Pet Licensing Service.

Detailed Service Improvement Recommendation reports were developed as the final outputs of the detailed review for the two selected services. Highlights from the detailed recommendation reports are provided in this Report.

4.4.3 Step 2 – Current State Discovery

The assessment started with background information gathering. Forms (application forms), by-laws (e.g., Parking By-law), provincial legislations (e.g., Building Code), etc. related to each selected service were collected and reviewed.

As-is service review workshops were held with the Subject Matter Experts (SMEs). During the workshops, the current business processes were documented from start to finish. All activities within the processes were identified and recorded using an online collaborative tool. The as-is process maps were generated and shared with the SMEs for review. Any corrections/changes were incorporated to the process maps.

4.4.4 Step 3 – Identify Service Gaps and Improvements

During the as-is service review workshops, the SMEs were encouraged to share current challenges as well as potential improvement ideas. The challenges were used as inputs to the potential improvements of the future processes.

SME improvement ideas, Perry Group's experience and knowledge from other municipalities and industry best practices were used to formulate the future service vision. Special attention was given to digitizing of the current manual activities. Draft to-be processes were prepared to depict the ideal future service offerings.

4.4.5 Step 4 – To-Be Process Design

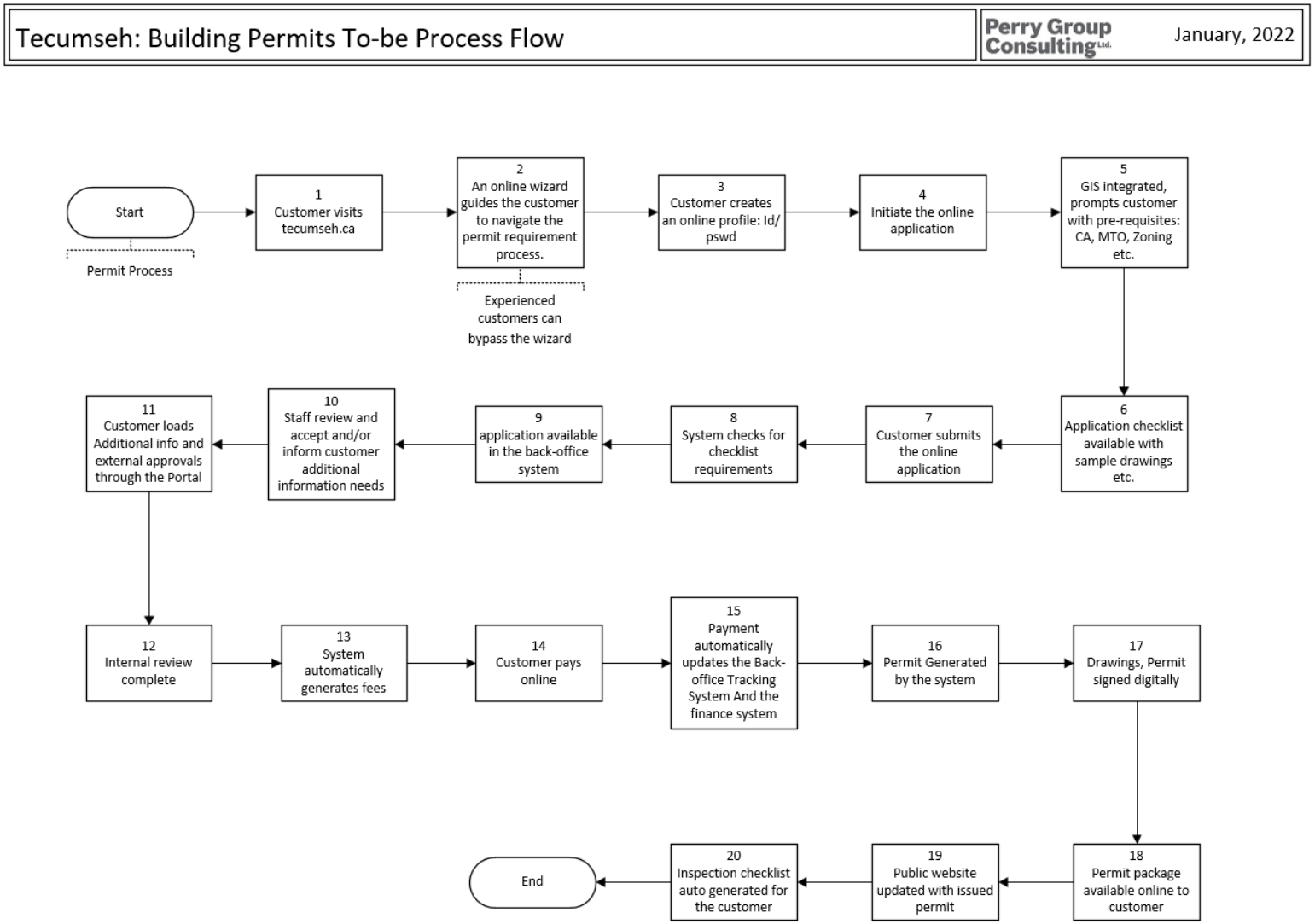
The SMEs were brought back to discuss and design the to-be processes. The draft to-be processes were presented by the consultant and inputs and further improvements were discussed with the SMEs.

Based on the inputs received at the to-be service workshops, final to-be process maps were generated.

The as-is processes were compared with the to-be processes to identify potential efficiencies for processes in each service area. The as-is process maps with savings can be found in Appendix 2 – Building Permitting and Inspections As-is Process Maps With Savings and Appendix 3 – Pet Licensing As-is Process Maps With Savings.

The optimized and digitized to-be process maps are provided below.

Building Permitting and Inspections To-Be Process Map



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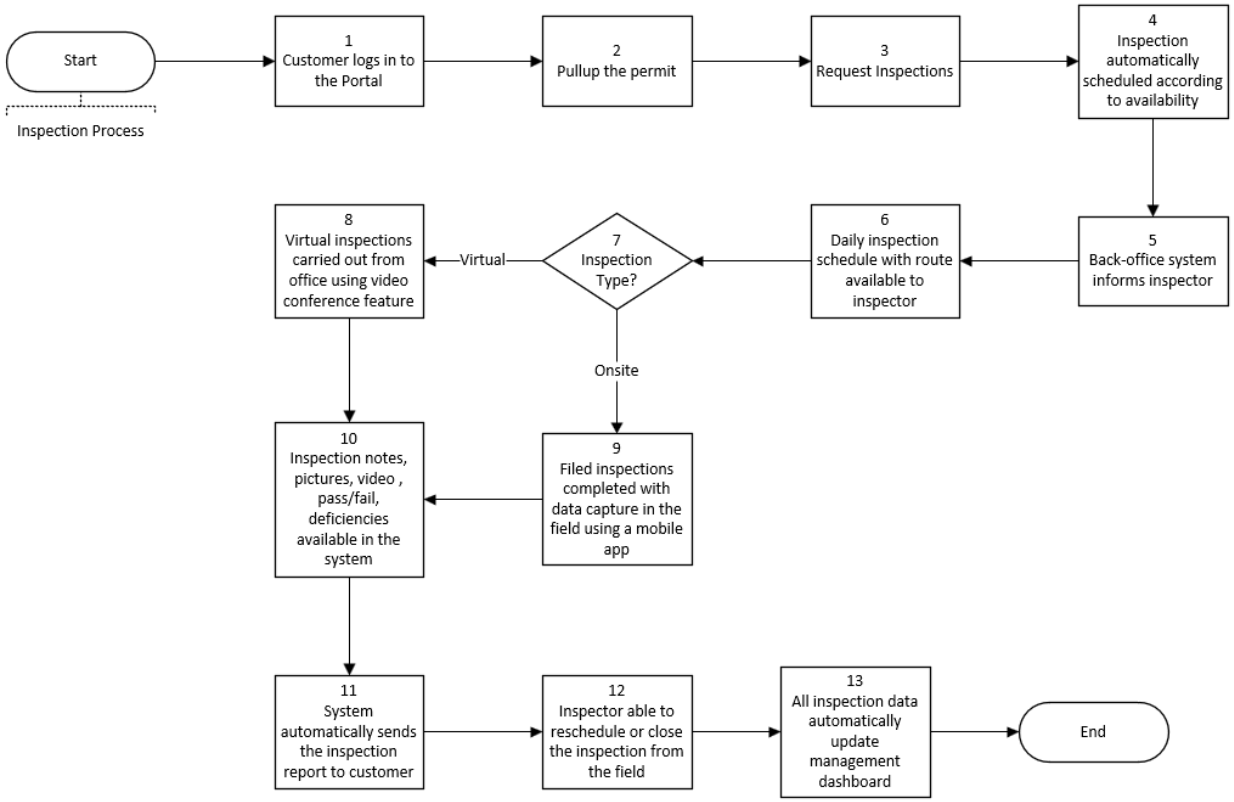

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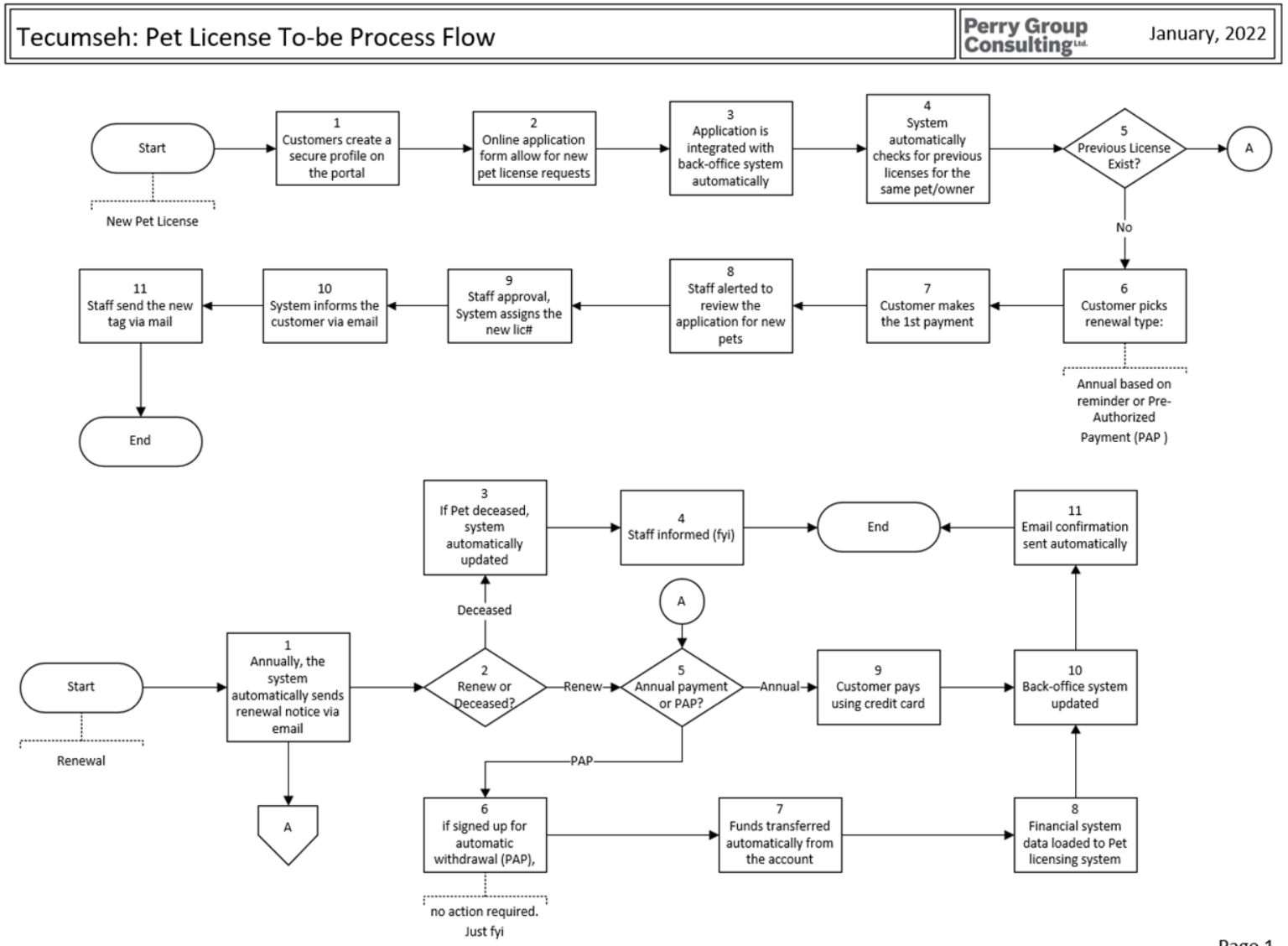
Figure 7: Building Permitting and Inspections To-Be Process Map

Pet Licensing and Renewal To-Be Process Map



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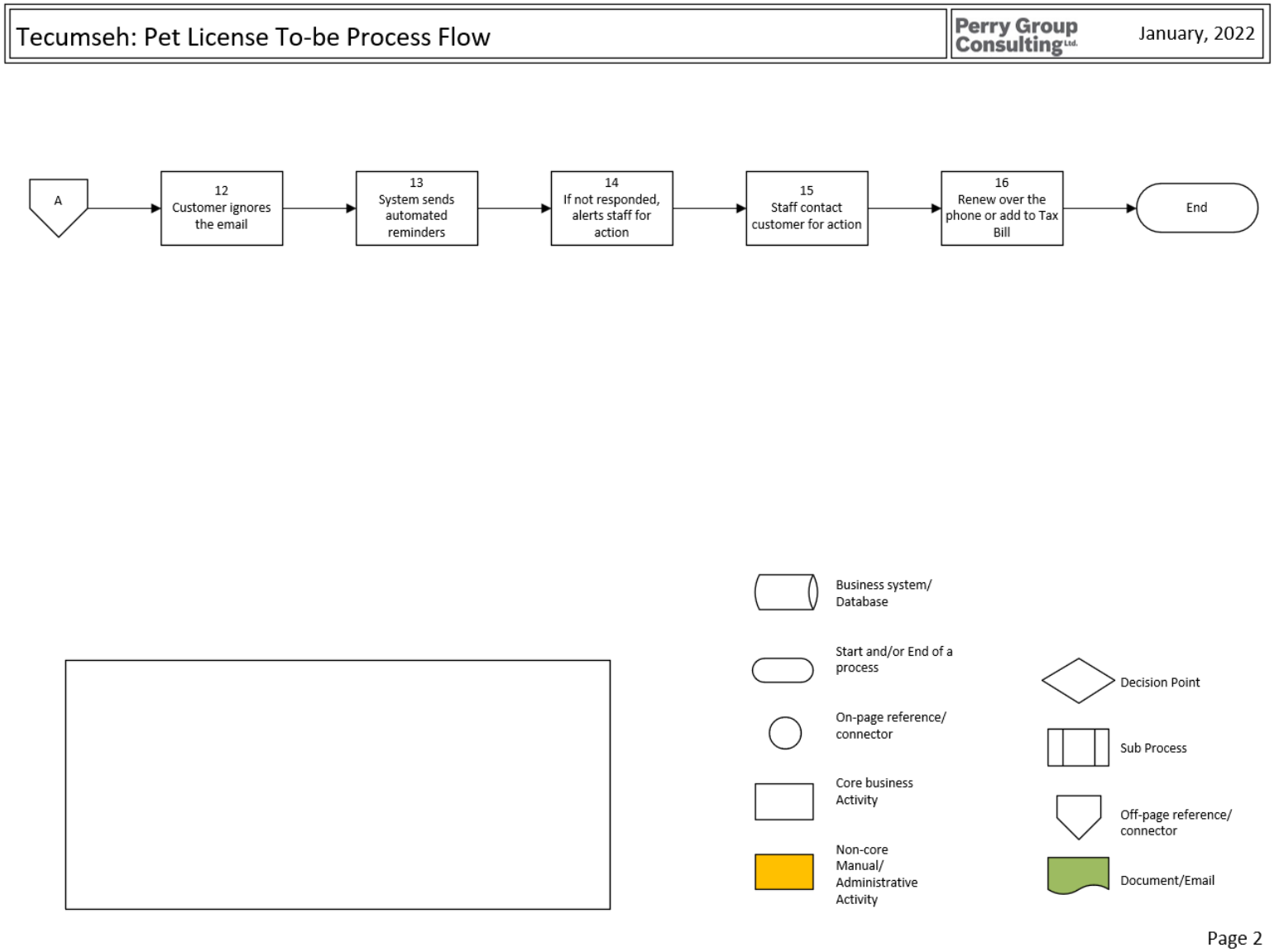


Figure 8: Pet Licensing and Renewal To-Be Process Map

4.4.6 Service Review Cost Analysis

As a requirement of the provincial reporting, cost savings and/or quantifiable efficiencies from this review must be identified.

Most of the opportunities recommended in this Report are identified as quantifiable efficiencies, primarily resulting from the service process review activities.

The consultants reviewed two business processes (Building Permitting and Inspections and Pet Licensing and Renewal) to identify potential service improvements and efficiencies. These two processes represent typical services offered by the Town.

Cost Savings

Cost savings represents direct reductions in expenditures, e.g., if recommendations are fulfilled, expenses could be reduced by a dollar amount.

The Digital Strategy identified the following cost savings:

Cost Reduction Opportunity	Potential Annual Cost Savings
Postage cost of pet license renewal notice. 0.90 per notice x 1,250 notices annually	$1,125
Total Cost Savings	**$1,125**

Quantifiable Efficiencies

Quantifiable efficiencies can represent non-monetary savings (such as staff time) that can be converted into monetary values.

The total savings were calculated based on a general assumption of 80% success rate. This assumes that the future online service will be used by 80% of customers.

The two processes that were reviewed have potential annual quantifiable efficiencies of $72,100 in time savings (based on a blended staff rate of $50 per hour and nearly 2,100 hours in time saved through process efficiencies). The potential customer time savings were also calculated based on the recommended to-be service model. The reduction in the number of inquiries, visits to Town offices and submission and re-submission efficiencies, were used to calculate the time saved for the customer. The same rate of $50 per hour was used to calculate the customer cost avoidance.

Further details are provided in the process maps where the activities for elimination and/or improvement have been identified along with the estimated time savings.

Detailed process maps are available in Appendix 2 – Building Permitting and Inspections As-is Process Maps With Savings and Appendix 3 – Pet Licensing As-is Process Maps With Savings.

Service Name	Potential Process Steps Eliminated / Reduced / Automated	Potential Annual Cost Avoidance for the Town	Potential Annual Cost Avoidance for Customers
01 Building Permitting and Inspections	30 of 45 steps in permit issuance 20 of 24 steps in inspections	$67,093	$18,320
02 Pet Licensing and Renewal	10 of 19 steps in new license issuance 16 of 25 steps in license renewal	$5,007	$8,333
Total Cost Avoidance for the two services based on 80% success rate	**76 of 113 steps**	**$72,100**	**$26,653**

4.4.7 High-Level Recommendations

The detailed recommendations for the two services are provided in separate Service Improvement Recommendation reports. Here are the highlights:

Building Permitting and Inspections Service:

- Digitize all property-based services on a single platform: permits, planning applications, by-law complaints, licensing.
- Integrate/extend the property services system with the website, Finance system, Records Management system, GIS.

- Build a customer portal including an online wizard for self-service, integrated with the Property Services system.
- Extend the system for mobile and virtual inspections.

Pet Licensing and Renewal Service:

- Implement an integrated Pet Licensing system with online self-service and automated renewal.
- Alternatively, review the benefits of using a third-party service provider for pet licensing. Some Ontario municipalities have started to use this model to reduce the internal administrative cost. This should be further reviewed from the customer service as well as the return-on-investment perspective.

5.0 Key Opportunities

5.1 Business Service Optimization

Two business service areas were reviewed to improve the current processes by eliminating and/or improving certain steps and to identify efficiencies. The key process improvement opportunities are listed below:

- Eliminate unnecessary duplicate data entry activities.
- Eliminate the manual activities that could be easily automated, e.g., calculating permit fees.
- Review the end-to-end business processes (it is important to define how various activities are related to form a complete process; optimizing parts of a process may not bring the expected overall efficiencies for the service).
- Look at the business processes from the customer's point of view.
- Embrace paperless processes. When paper-based requirements are incorporated to a process, it means additional duplication of activities.
- Implement standard process review practices and collect the process maps to a corporate repository.
- Over time, conduct business service optimization work with all services and identify priorities for service enhancement.

5.2 End-to-end Digitization of Services

The two sample process reviews conducted by the consultants show that the Town is using their current technology environment to automate some parts of the business processes but not the entire process from start to the end.

For example, an online pet license request is available for citizens to fill out, but there is no integration with the back-office tracking system. Similarly, there is a back-office tracking system for building permits but no citizen-facing online portal for application intake.

These examples show that there are opportunities to transform the current service delivery methods using the digital channel. The following principles could help design good digital services:

- Consider the entire process from start to end.
  - Most often, a specific part of a process is automated to tackle a specific challenge. The Town should instead concentrate on digitizing entire processes, e.g., digital payments within a manual process is only digitizing the payment intake activity. Instead, the whole application process including payments should be digitized.
- Encourage touchless services.
  - A touchless service takes the request from a customer digitally and provides the service without the need for staff to review, e.g., renewal of a pet license could be a touchless annual activity.
- Embrace digital approvals within the business process so that the digital chain is not broken.
  - When a physical signature is required within a digital process, the information is printed, signed, and delivered, which is less efficient.

5.3 Implementing a Municipal ERP

A municipal ERP system is a business system that incorporates multiple external and internal municipal services into a single system. The ideal solution would have built-in integration between these modules so that there is a seamless data transfer between services.

Traditional ERP systems are built to enable Finance and HR services. A modern municipal ERP could include most of the following modules:

- Finance services: General Ledger, Accounts Payable, Accounts Receivable, Purchasing, Taxation, Utility Billing, etc.
- HR services: Recruitment, performance management, succession planning, benefits, payroll, etc.
- Property-based services: Planning, Permitting, Licensing, By-law Enforcement, etc.
- Asset and Work Management: Work orders, asset inventory, asset management, inspections, maintenance, etc.

The ideal system would also have the following features:

- Online portal and online services – Ability to create a single account with multiple online service options.
- Mobile computing – Ability for internal staff to use mobile applications to perform field work such as inspections.
- Integrated – All modules are integrated seamlessly.

It is recommended that Tecumseh conduct a requirements review and market scan and decide whether to upgrade or select a new solution.

It is important to note that one of the key decisions in selection of an ERP will be to determine which modules are most appropriate and fit the requirements of the organization. As an example, with ACTIVE Network already implemented, shifting to an ERP recreation module is not necessary at this point in time.

5.4 Create a Customer Portal

Customers should be able to get all their information in one place. This can be as simple as providing a landing page similar to the "I Want To" page on tecumseh.ca, however, the real benefit in having a customer portal is the ability for customers to get access to personalized services and transaction history.

As such, it is recommended that Tecumseh look at customer portals with the following features:

- Single sign on capability to log into various applications (such as ACTIVE Network, Cityworks) with one ID and password.
- Transaction history and status for service requests and submitted forms.
- Personalization features such as location-based services (e.g., "what's near me?").
- Subscription and notification management.

As additional services are delivered digitally, additional features can be added to the portal.

Note: Portal solutions can be associated with several technology platforms, including the ERP, or CRM, or with the web Content Management Solution. eSolutions has a citizen portal solution and, subject to review of the requirements, could be a quick win prior to launch of an ERP or future CRM solution as eSolutions is a current vendor/partner with the Town.

5.5 Decision on CRM

A CRM solution provides a centralized location to manage customer relations (as the name implies). Significant features can be incorporated into the CRM but, at its core, it is about maintaining a customer record and managing service requests, case management, and client interactions.

A CRM solution will:

- Be utilized as a 311 platform, collecting all service request and queries in one solution.
- Make case management and history available to both customer and appropriate staff.
- Provide connectivity to the back-end system for near-real-time response and update.

Currently, Tecumseh has Cityworks which is used for work order management on the back-end and could have customers self-serve through a portal.

On tecumseh.ca, a Report an Issue form is available.

With the pending centralization of the customer service function, it would be prudent to get services operational, better understand customer service requirements and assess the needs prior to consideration of a full-featured CRM.

The eSolutions citizen portal provides CRM “lite” features and can integrate with Cityworks. Staff need to review the potential solutions and determine where the customer record will reside.

5.6 Digital Form Transformation

As identified, Tecumseh offers forms online in a variety of form factors – online fillable eForms (Report an Issue), non-fillable PDFs (Application for a Permit to Construct or Demolish), or fillable PDFs (Open Air Burn Permit) in addition to paper-based forms.

Additionally, form layouts and styles are not consistent. Currently, the greatest challenge to eForms in Tecumseh is limited back-end solutions for form repositories – processes aren’t digital end-to-end.

The suggested approach is to:

- Utilize the service inventory, catalogue all forms, and rationalize and prioritize for online delivery (taking into account form lifecycle and value).
- Develop a consistent standard style and presentation for forms (including field order).

- Identify a back-end system where the form will reside (wherever possible). Forms serve a purpose, so where no back-end system exists, determine whether or not a system is required or if the form could be identified as a service request/work order and reside within the CRM.
- Provide the customer with an acknowledgement of submission and what should be expected as a response (forms should provide feedback whenever submitted).

5.7 Develop Digital Customer Delivery and Standards

With the organizational review is a focus on a centralized customer service function and communications.

The functions provide the opportunity to develop standards for digital customer service delivery including:

- Identified customer profiles and barriers.
- Service level expectations.
- Identified service metrics (including transactions by channel).
- A service catalogue.
- UXD (user experience design) templates, forms, and styles.

5.8 Enhance Digital Engagement and Feedback

Digital provides a great opportunity for public discussion and open dialogue.

Currently, Tecumseh uses a number of channels for communications, consultation and online engagement with the public including social media and PlaceSpeak. Opportunities exist to provide public forums where they can curate ideas and interact on suggestions, unsolicited polling, or discussion boards to try out ideas for new services and municipal initiatives.

This work was originally identified in the ITSR and would be supported through the introduction of the Manager Customer Service and Communications Officer positions.

5.9 Online Building Permits, Land and License Management

Throughout the province there is significant demand to bring Building services online. Tecumseh is currently implementing CityReporter for inspection services and has Vadim for the back-end on building permits.

A business decision will need to be made whether to include building permits with the ERP and, if not, a full-featured Building, Land, and License solution should be considered.

5.10 Staff Collaboration and Productivity Tools

Information Systems (IS) staff are currently conducting trials on the M365 Office Suite. There is a great deal of functionality with Microsoft's M365 Cloud-based product suite including Office, Exchange, OneDrive, SharePoint, and Teams which collectively provide solutions to collaboration, intranet, email, and document management.

With functionality, however, comes a cautionary note – the cost. Although there is an allocation in the Technology & Client Services Lifecycle budget, the Town needs to get estimates to establish total cost of ownership associated with implementation of M365. This should drive decisions that will inform future opportunities for document and information management, staff intranet and internal collaboration tools.

Note that discussions are currently underway with vendors.

5.11 Integration and Data Management Plan

To achieve end-to-end digital services, having integrated core systems is essential.

Wherever practical, Tecumseh needs to work on integrating systems and sharing the relevant data across the systems. Getting an ERP or financial system that can integrate with online services is crucial for success.

The consultant recommends developing an Integration and Data Management Plan that includes:

- Defined integration standards and methodology.
- Illustration of integration and data flow.
- Defined data standards and classification.

  Master data sources for property, staff, and customers.

The Integration and Data Management Plan should form part of the IS standards used in procurement and review of new solutions.

5.12 Enhance Digital Governance

An IT Governance Committee was established in the fall of 2021. In anticipation, the scope of the governance included digital initiatives, however, introducing digital accelerates the requirements for governance.

As identified within this Report, digital solution reviews should be on the agenda for governance and, as the organization matures digitally, technical, and digital planning must be incorporated into corporate business planning for individual departments.

Similar to departments being accountable to budgets and use of resources, thought needs to be given to how departments will deliver processes digitally.

Supplemental to this Report, work on governance with Tecumseh is planned.

5.13 Develop Digital Capacity and Enablement

Developing digital capacity is about readying all those involved for the digital transformation from staff to the customer, to senior management.

Some readying activities would include:

Public – Informing the public of digital service initiatives, understanding their needs (and potential barriers), engaging them ahead of release, providing learning opportunities, providing access to equipment, and support. In many municipalities, libraries play a key role in digital education, so identifying opportunities with Essex County Library should be investigated.

Staff – Providing staff with the training on digital technologies both for in-the-office and in-the-field, build capabilities into job descriptions and look to hire digital talent, celebrate success, and engage in the digital journey.

Leadership – Provide the information to make informed digital decisions utilizing data, encourage innovation and process improvement, and incorporate into department business planning.

5.14 Choosing Digital Channels

Currently, Tecumseh provides services primarily through traditional channels – phone, email, in-person – with additional online services and social media for specific services.

Moving forward and with online services, customers will expect to be able to self-serve. Introducing Chat and Chatbot functionality should only be considered if sufficient demand for service and capacity to deliver the service exists – it should not be considered a short-term goal.

Also, for consideration as availability of online services and self-service increases, efforts should be placed into reducing email. Email is one of the most ineffective delivery channels to maintain and, despite its electronic delivery, can be difficult to incorporate to customer record.

5.15 Create an Online Payment Portal

Tecumseh has already enabled online payments for various solutions including recreation programs and some eForms, but this is inconsistent to the customer. Consider developing a general payment processing form/portal using existing technologies.

A good example of the payment form (using the same product) is the Township of Georgian Bay, providing a form through which payment for different services can be received using credit card or debit: Payment Processing Form – Township of Georgian Bay (gbtownship.ca).

6.0 Other Considerations

Throughout the Strategy, many concepts and ideas have surfaced.

The preceding section spoke to the key opportunities Tecumseh should consider but, in addition, there are a number of concepts and tactics that will need to be considered along the digital journey.

6.1 Analytics

Central to the concept of digital is the value of the data and information produced.

- Utilize analytics to better understand customer preferences and influence priorities for digitization.
- Expand the use of analytics to improve service delivery and understand customer behaviours.
- Make Search Engine Optimization (SEO) part of a regular review for both internal and external engines.
- Capture metrics and statistics of social media interactions tracked and reported.
- Bring all usage data together to build the customer profile.

6.2 Partnerships

Develop and leverage partnerships to expand digital opportunities.

- Maintain traditional relationships (municipalities, County of Essex, City of Windsor).
- Expand to new partnerships such as key vendors on digital opportunities (invitations to partner/offers to pilot/innovation showcase).
- Consider pooled resourcing opportunities tied to skills or initiatives (such as security resources).

6.3 Procurement

Tecumseh already uses modern tools and looks to partnership for procurement opportunities.

Moving forward, newer procurement approaches are being introduced in the digital space such as challenge-based procurement. Additionally, more opportunities are emerging among industry partners for shared procurement.

Introduction of Cloud services also requires more consideration of “total cost of service” models built into the procurement and decision process, and with greater interoperability of applications, comes the greater need to have solutions and services utilize open standards that will work with existing systems.

6.4 Change Management

Change management is the driver to ensure that people are in place to support a process but, most importantly, that people are also motivated and empowered to do so.

A change management process should be part of any major technology and digital project to some degree. It can be as simple or as complex as a project group deems necessary but, ultimately, there needs to be pre-work completed in order to determine who and how people will be engaged throughout.

6.5 Service Focus

The Digital Service section spoke to contributing to the customer experience by shifting the focus to the customer. That shift has a ripple through the organization. Consider the following in introduction of new services:

- Services need to be defined in terms of what the customer is looking for, not necessarily the department structure. As a result, customers should be consulted in the design of new services to ensure their perspective is represented.
- Business has the responsibility for understanding the customer needs and articulating them to requirements and, in the case of digital, this is about digital delivery opportunities being driven from the business and service owners. Digital planning and improvement needs to be integrated into an annual business planning process.
- IT has the responsibility of working with the business to provide solutions that will match requirements with system capabilities. Where requirements/capabilities don’t meet highlights a need for improvement.
- The responsibility for service/content delivery and application provisioning needs to be defined between the departments and TCS.

6.6 Patterns and Service Design

Service patterns are a generalization that help us look at a service in a conceptual, high-level manner, before getting too bogged down in details.

Identifying service patterns allows us to break down services into their component parts, to build out guidelines and best practices that we can apply to the components. They also help us consider broader topics like ways of working, uses of underlying technologies and how services are supported by capabilities and processes inside organizations.

Recognizing and using service patterns helps us:

- Provide a common starting point that focuses our attention on commonalities over differences.
- Develop consistency and familiarity for the customer.
- Avoid reinventing the wheel each time and focusing on interaction designs and patterns that work.
- Deliver consistency of service at scale (we want to deliver new digital services fast, but they need to be consistent experiences, re-using our learning, experiences, and technologies, where possible).
- Promote the re-use of common technology components and capabilities, speeding implementation, saving money, and reducing complexity.
- Apply shared values and practices.

As Tecumseh moves forward, it should consider the use of patterns associated with service delivery design.

The following table identifies a common pattern set.

Pattern Name	Pattern Description
Apply For Something	Enables the user to complete an application process. In most cases, this pattern is linked with a “Check” pattern to assess the eligibility (e.g., is the user being asked to submit a type of application to complete a task?).
Book Something	Enables the user to book things such as a course, appointment, a room, an item, or a person’s time. In most cases, a specific date and time need to be selected.

Pattern Name	Pattern Description
Check Something	Enables a person who needs to understand if it applies to them or helps them find something (e.g., the status of something, the closest location, or their eligibility for a service).
Consent or Authorize	Enables the user to provide consent to something (such as sharing data within the organization or a 3rd party), provide approval or acknowledgement on the use of personal information and acceptance of the process.
Get Information	Find information (read text on website, access a knowledge base article, watch a video, listen to audio, download a document or a guide) about services or a service, when to use, how to use, requirements to use, communicate expectations of use.
Get Notified	Receive an alert / notification about something.
Internal Workflow	Enables staff to handle requests, cases, manage processes and workflows and secure approvals and sign-offs.
Pay for Something	Enables the user to complete a monetary transaction toward the municipality.
Register for Something	Enables the user to complete a process (like booking something). By registering, users will create an account with personal and sensitive data to which they can return.
Request Something	Enables the user to ask for something specific in order to get to some tangible outcomes (e.g., a copy of a certificate, a pass, or a digitized record).
Tell us Something	Enables the user to give some information to the municipality, like a referral or to report something.

6.7 Digital Delivery Model

Further to the concept of patterns (as described above), is digital delivery.

As Tecumseh implements additional digital services, using a repeatable process for service delivery will assist in the deployment and also serve to manage expectations with both staff and the public.

The following is a sample 9-step approach to the implementation of new digital services:

1. Pick a service based on prioritization criteria.
2. Conduct an as-is service and process review and user research.
3. Design the new to-be service and process to be digital using the digital principles and good service design.
4. Re-use existing tools to build a Minimum Viable Product (MVP).
5. Build re-usable patterns, wherever possible.
6. Deploy as beta after testing with the service owner and seeking customer feedback.
7. Seek user/customer feedback using a structured digital feedback form.
8. Iteratively enhance based on feedback.
9. Promote the new digital service within the service area.

6.8 Experimentation

Tecumseh should set an expectation of experimentation.

As previously identified, digital delivery often takes a more agile approach, providing enhancements and services changes in incremental pieces and adjusting based on feedback.

This is often considered a better match with the speed at which technology shifts, compared to more traditional “big bang” delivery approaches for service implementation.

Setting the expectation for both staff and the public places more emphasis on innovation and, tied to the delivery model, helps to establish expectations.

6.9 Mobile Access

Improving the mobile experience isn't just for the customers. Tecumseh has staff in the field with mobile technology.

Designing services that enable staff to update information in the field and complete work without having to return to the office should become the norm.

7.0 Resources and Organization

The Town must be positioned appropriately to deliver on the Digital Strategy otherwise it will be very difficult to move forward. This Strategy also identifies a new approach to technology and how service delivery can be impacted through digitization and technology.

The ITSR identified several important concepts for resourcing including leveraging the expertise of others, partnerships, and outsourcing. It also discussed the need for partnerships between the business units and the IT team to help ensure ownership and accountability of successful digital projects. Other recommendations included adding new skills such as Business Analysis and Project Management.

The Corporate Organization Review completed in 2021 recognized the synergy between customer service, communications, and technology, and recommended they be consolidated into a single department. It was identified that this consolidation will help the organization move forward with customer service improvements and manage the workload to better meet the strategic priorities of the Town.

The Review also supported the IT organization recommendations of the ITSR. The IT organization will help support the implementation of the Digital Strategy as each of these functions are critical to identifying, implementing, and embracing digital capabilities to better define new business processes and digital service delivery in accordance with the previously mentioned service standards.

As a result of the growing importance of technology and digital services, IT can no longer operate as a back-office support function. The new organization structure supports this concept.

IT and digital need to become a strategic function that has the power to transform service delivery to better meet customer expectations and to make their experiences with the Town better. It is also important to help staff be more efficient and effective and to help the Town do more with less. The new structure will allow the Director Technology & Client Services to be more strategic in planning and to encourage more digital thinking and accountability as new projects are evaluated by the Governance Committee.

As an organization, the Town must continue to develop its digital savviness and awareness in all departments and build a digital culture where technology and digital is recognized as being central to service delivery, efficiency, and effectiveness.

8.0 Roadmap

The following represents the Key Opportunities identified by the Areas of Focus.

Overall, for 2022, a focus should be placed on making decisions about key technologies and ensuring the processes are in place to support digital transformation. There are many paths that digital could take, not only dependent on resource capability and budget, but on the potential outcomes of decisions. As an example, a decision on the CRM plan has potential to impact the customer portal and ERP.

Further, with the close tie to the IT Service Review for many of these initiatives, it is recommended that the new digital projects need to be integrated with the existing project list and validated for timing by the governance group.

Additional work on planning and dependencies is being scheduled with Tecumseh staff supplemental to this Report.

Year	Key Opportunities
2022	**Digital Services** • Decision on CRM (interim) Cityworks, eSolutions, other options. • Digital Form Transformation (ongoing) – catalogue online forms, prioritize for conversion. • Develop Digital Customer Delivery and Standards.
2022	**Digital Workspace and Collaboration** • Staff Collaboration and Productivity Tools – 2022 – decision on M365 (subscription package), M365 Office. • Implementing a Municipal ERP – conduct requirements, decision on upgrade or replacement. • Enhanced Digital Governance (ongoing) – 2022 – integrate digital to IT governance, prioritize services. • Develop digital capacity and enablement – initiate.
2022	**Data and Architecture** • Integration and Data Management Plan – 2022 format plan. • Choose digital channels (reviewed relative to new services to be digitized).

Year	Key Opportunities
2022	**Modelling Digital Services** • Business Service Optimization (annual/ongoing) – based on the services list, select services for review. For 2022, Clerks related services, payroll business processes, Building Permits have been reviewed. End-to-end digitization of services (annual/ongoing) – through the BSO activities, identify opportunities for digitization. These opportunities will also require the technology to be in place. Each year as part of the governance planning, agree on new services to be digitized.
2023	**Digital Services** • Online Building Permits, Land and License Management – Phase 1 requirements, initial implementation. • Create a customer portal. • Create an online payment portal. • Enhance digital engagement and feedback. • Digital form transformation (ongoing). • Digital customer delivery and standards – revise iteratively.
2023	**Digital Workspace and Collaboration** • Implement a municipal ERP – upgrade or replacement. • Staff collaboration and productivity tools – potential expansion based on 2022 decision. • Enhanced digital governance (ongoing). • Develop digital capacity and enablement (ongoing).
2023	**Data and Architecture** • Integration and Data Management Plan (ongoing) – incorporate results from the Records and Information Management Review. • Choose digital channels (reviewed relative to new services to be digitized).

Year	Key Opportunities
2023	**Modelling Digital Services** • Business Service Optimization (annual/ongoing) – based on the services list, select services for review. • End-to-end digitization of services (annual/ongoing) – through the BSO activities, identify opportunities for digitization. These opportunities will also require the technology to be in place. Each year as part of the governance planning, agree on new services to be digitized.
2024	**Digital Services** • Online Building Permits, Land and License Management – Phase 2 additional modules. • Review CRM (interim/lite). • Digital form transformation (ongoing). • Digital customer delivery and standards – revise iteratively.
2024	**Digital Workspace and Collaboration** • Staff collaboration and productivity tools – potential expansion based on 2022 decision. • Enhanced digital governance (ongoing). • Develop digital capacity and enablement (ongoing).
2024	**Data and Architecture** • Integration and Data Management Plan (ongoing). • Choose digital channels (reviewed relative to new services to be digitized) – potential chat/reduce email.
2024	**Modelling Digital Services** • Business Service Optimization (annual/ongoing) – based on the services list, select services for review. • End-to-end digitization of services (annual/ongoing) – through the BSO activities, identify opportunities for digitization. These opportunities will also require the technology to be in place. Each year as part of the governance planning, agree on new services to be digitized.

Year	Key Opportunities
2025	**Digital Services** • Digital form transformation (ongoing) – catalogue online forms, prioritize for conversion. • Digital customer delivery and standards – revise iteratively.
2025	**Digital Workspace and Collaboration** • Enhanced digital governance (ongoing). • Develop digital capacity and enablement (ongoing).
2025	**Data and Architecture** • Integration and Data Management Plan (ongoing). • Choose digital channels (reviewed relative to new services to be digitized).
2025	**Modelling Digital Services** • Business Service Optimization (annual/ongoing) – based on the services list, select services for review. • End-to-end digitization of services (annual/ongoing) – through the BSO activities, identify opportunities for digitization. These opportunities will also require the technology to be in place. Each year as part of the governance planning, agree on new services to be digitized.

Appendix 1 – Glossary of Terms

While this document is written in as plain a language as possible, some technical terms and acronyms are defined here to offer clarity.

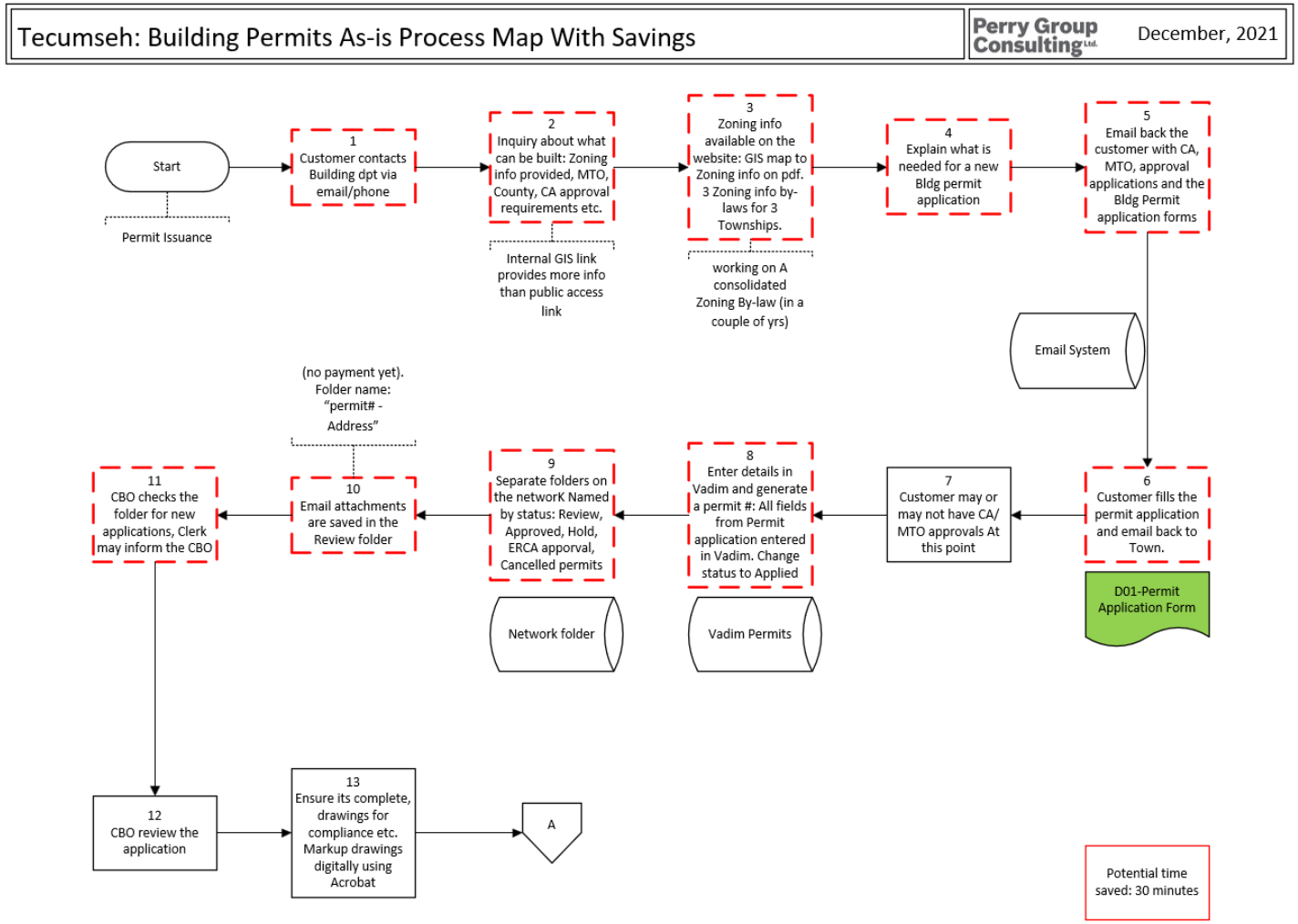
Term	Explanation
Agile	An iterative approach to project management and solution development.
AI – Artificial Intelligence	A systems capability to learn and react to data inputs based on algorithms and machine learning.
AODA – Accessibility for Ontarians with Disabilities Act	A law that sets out a process for developing and enforcing accessibility standards.
API – Application Programming Interface	A software intermediary that allows two applications to talk to each other.
AV – Anti-Virus	Software to protect from virus infection.
BCP – Business Continuity Plan	A document that outlines how a business will continue operating during an unplanned disruption in service.
BI – Business Intelligence	Refers to technologies, applications and practices for the collection, integration, analysis and reporting of business information, and is designed to support better business decision-making.
BSO – Business Service Optimization	Methodology to review business activities and processes with the goal of improving efficiency and quality of service.
CBO	Chief Building Officer.
CMS – Content Management System	A content management system supports personalization, manifests the user experience, handles management of web content, and provides search and site navigation features.

Term	Explanation
CRA – Canada Revenue Agency	The revenue service of the Government of Canada; collects taxes, administers tax law and policy and delivers benefit programs and tax credits for the federal government and most provincial and territorial governments.
CRM – Customer Relationship Management	A generic system for case management that can be used for handling customer enquiries. *Note that the C in CRM is used differently in many municipalities – Citizen, Client, Customer, and Constituent.*
Customer	Refers to users of the municipality's technology and digital services, including residents, businesses, visitors, Mayor and Council, the workforce, and partners.
Data	Information in an electronic format that can be stored and used by a computer, typically collected to be examined and considered and used to inform and help decision-making.
DCMS – Document and Content Management System	Used to classify, retain, and protect electronic information and supports versioning, collaboration, and workflows.
Digital	Refers to a mindset, mode of operating, and delivery of services that takes advantage of modern technologies (web, app, social, mobile, data). These deliver improved experiences, business efficiencies and insights.
Digitized	The automation of manual and paper-based processes, enabled by the digitization of information and workflows, moving from an analog (often paper-based) process to a computerized process.
DMM	Digital Maturity Model.
EIA – Enterprise Integration Application	Integration platforms. The most common being hub and spoke and ESB.
ERP – Enterprise Resource Planning	A system that is designed to address business requirements across the whole organization.
ESB – Enterprise Service Hub	An integration hub to automate and monitor integrations between systems.

Term	Explanation
GIS – Geographical Information Systems	Systems designed to capture and report on all types of geographical data, including spatial data.
IoT – Internet of Things	Broad term used to describe internet (or network) connected devices, sensors, and controls.
ITSR – Information Technology Service Review	Reference to work completed in 2021 to review the IT services of Tecumseh.
LMS – Learning Management System	A digital learning environment that manages all aspects of a company's various training efforts.
LPMS – Land and Property Management System	A land, planning, permitting, and licensing system (e.g., CityView).
M365 (formerly Office 365 or O365)	Microsoft Cloud-based office productivity suite which includes email and calendar, messaging, collaboration, and MSOffice suite of products.
MDM – Master Data Management	A technology-enabled discipline in which business and IT work together to ensure the uniformity, accuracy, stewardship, consistency, and accountability of an organization's official shared master data assets.
MOSA – Municipal Online Services Assessment	Perry Group's generalized assessment to articulate a target state for the digital experiences that municipalities could, and arguably should, deliver to citizens based on industry best practices.
MTM – Municipal Technology Model	Perry Group's generalized architecture used for assessing municipal technology environments.
MVP – Minimum Viable Product	The simplest, smallest solution that can be delivered to start to address a business requirement.
SEO – Search Engine Optimization	A process to improve search results for users.

Term	Explanation
SME – Subject Matter Expert	An individual familiar with a particular subject or line of business.
TCS – Technology and Communication Services	Department at Tecumseh that oversees technology, GIS, and Communications.
TOMRMS – The Ontario Municipal Records Management System	A complete file classification system for managing the paper and electronic records of an Ontario municipality, including retention.
UX – User Experience	Encompasses all aspects of an end user's interaction with the company, its services, and its products.
UXD – User Experience Design	A design process whose sole objective is to design a system that offers a great experience to its users.

Appendix 2 – Building Permitting and Inspections As-Is Process Maps With Savings



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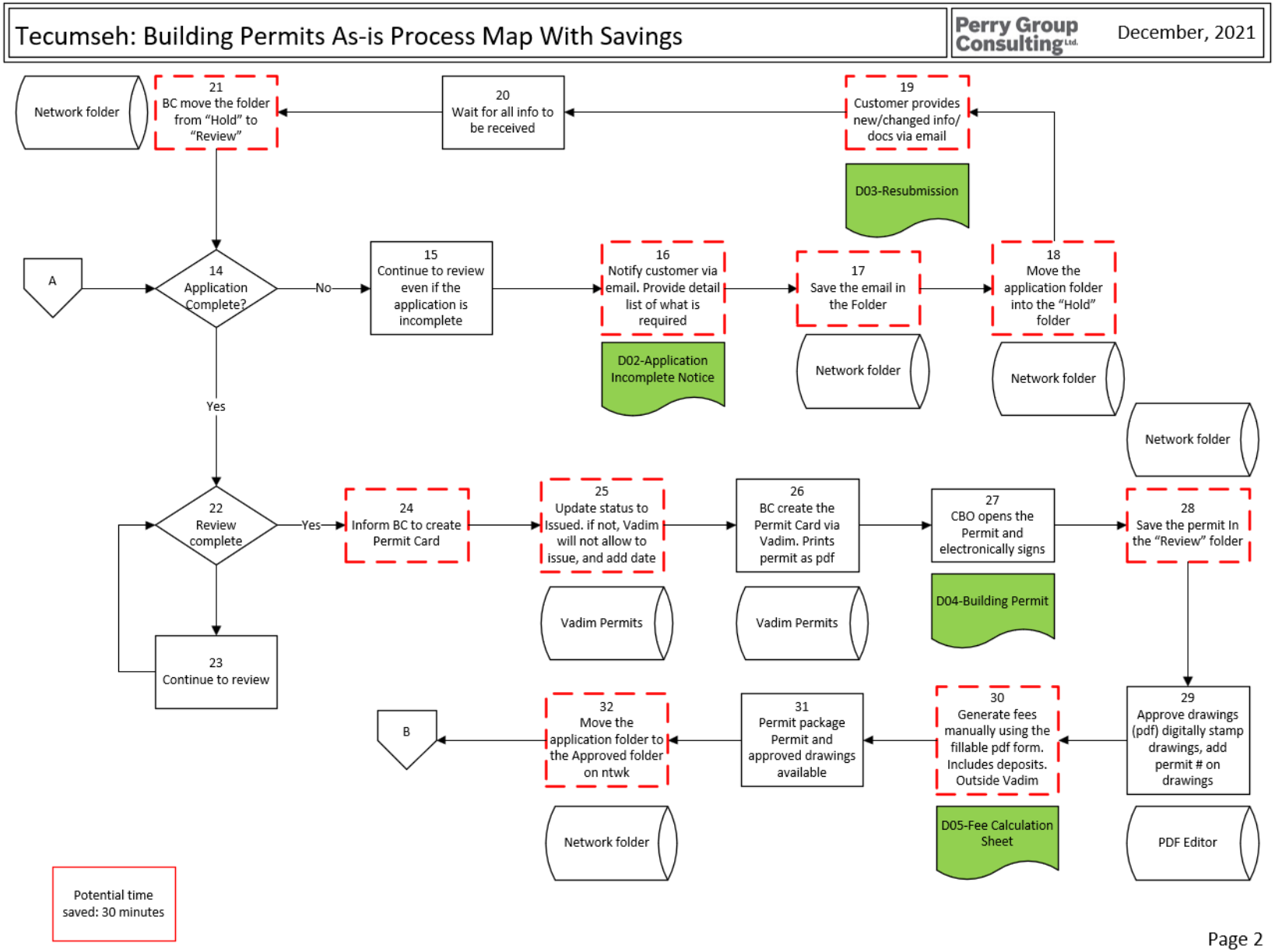
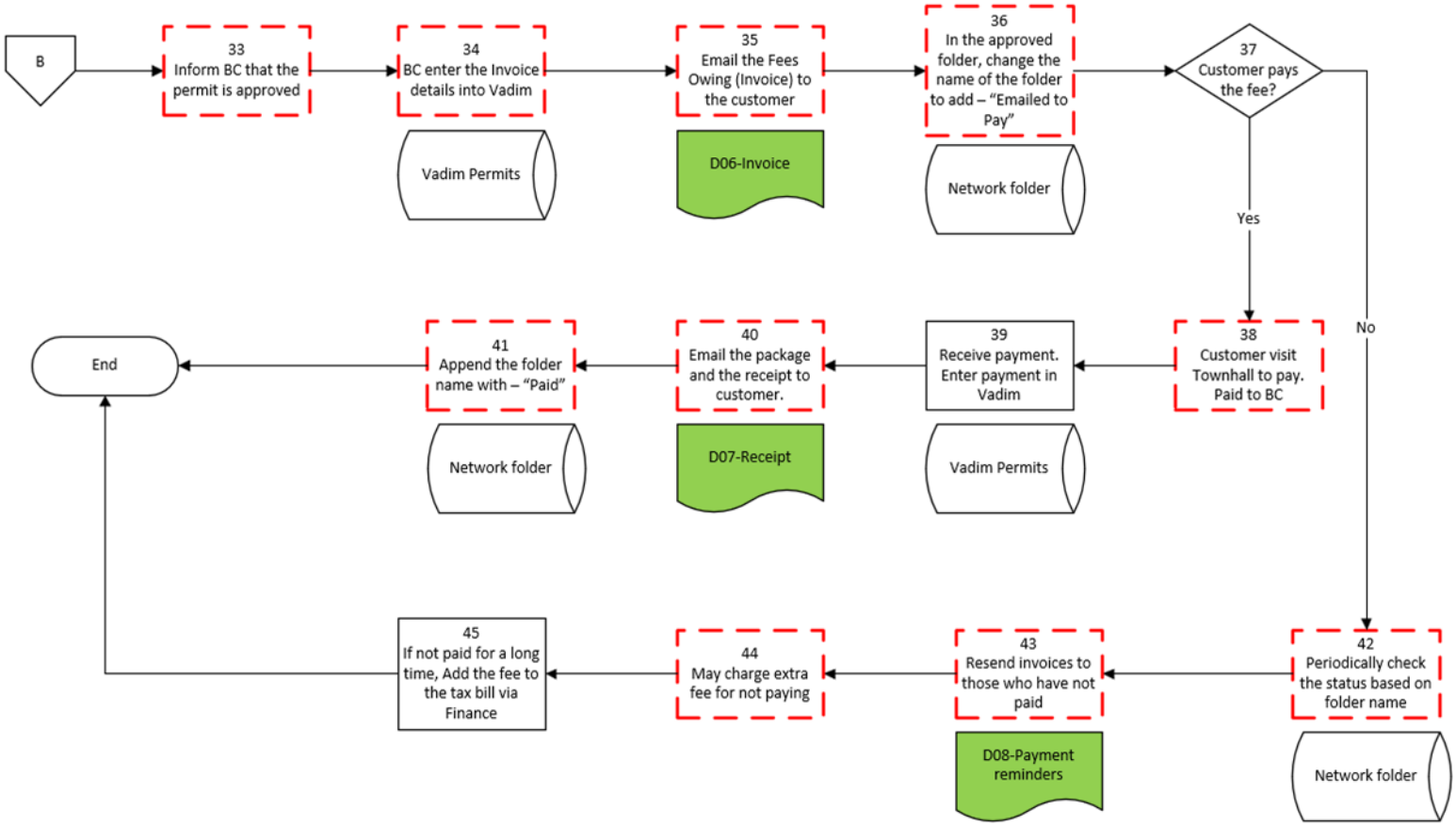
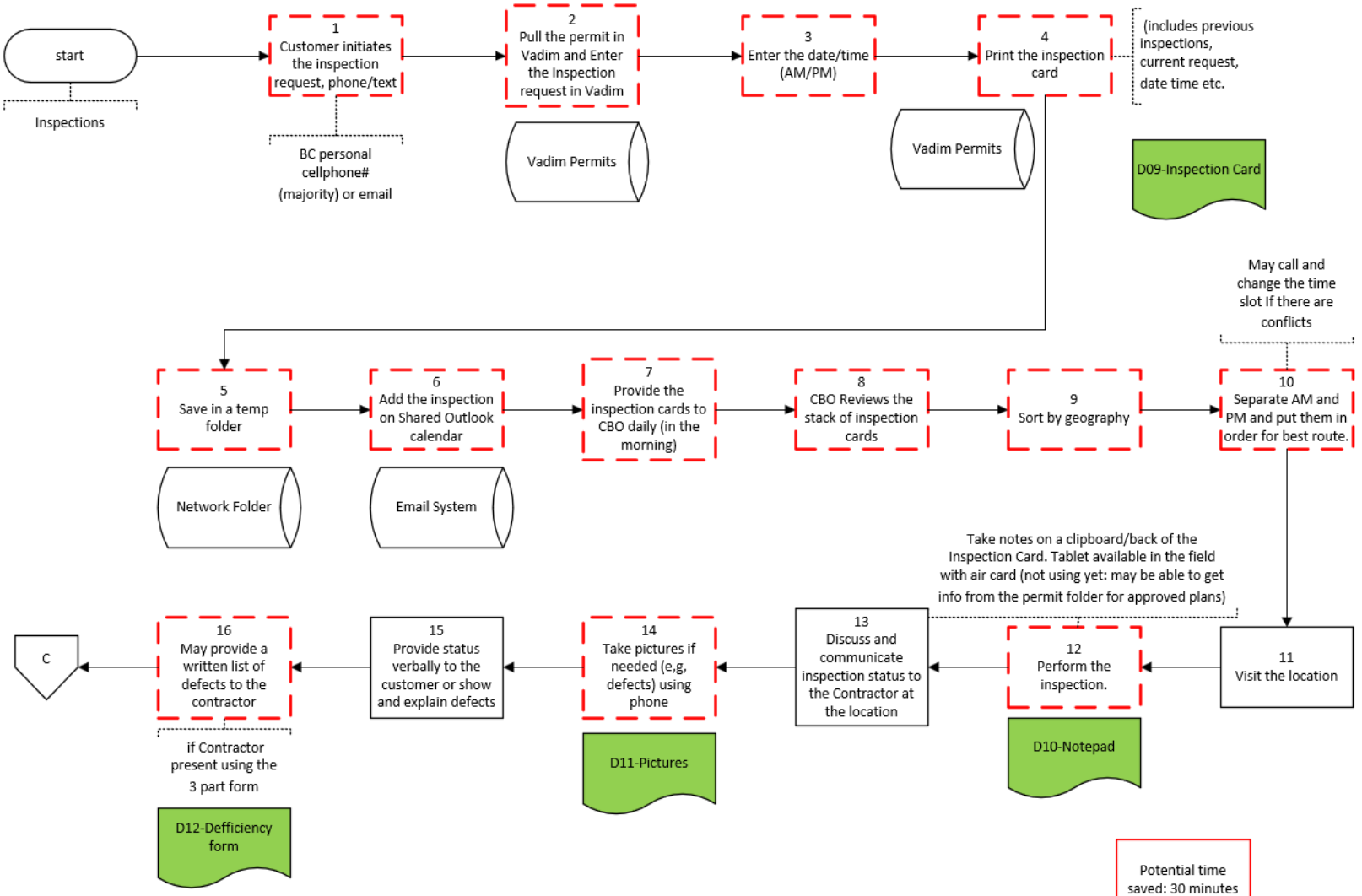

Tecumseh: Building Permits As-is Process Map With Savings
Perry Group Consulting Ltd.
December, 2021
Network folder
21
BC move the folder from "Hold" to "Review"
20
Wait for all info to be received
19
Customer provides new/changed info/ docs via email
D03-Resubmission
A
14
Application Complete?
No
15
Continue to review even if the application is incomplete
16
Notify customer via email. Provide detail list of what is required
D02-Application Incomplete Notice
17
Save the email in the Folder
Network folder
18
Move the application folder into the "Hold" folder
Network folder
Network folder
Yes
22
Review complete
Yes
24
Inform BC to create Permit Card
25
Update status to Issued. if not, Vadim will not allow to issue, and add date
Vadim Permits
26
BC create the Permit Card via Vadim. Prints permit as pdf
Vadim Permits
27
CBO opens the Permit and electronically signs
D04-Building Permit
28
Save the permit In the "Review" folder
23
Continue to review
B
32
Move the application folder to the Approved folder on ntwk
Network folder
31
Permit package Permit and approved drawings available
30
Generate fees manually using the fillable pdf form. Includes deposits. Outside Vadim
D05-Fee Calculation Sheet
29
Approve drawings (pdf) digitally stamp drawings, add permit # on drawings
PDF Editor
Potential time saved: 30 minutes

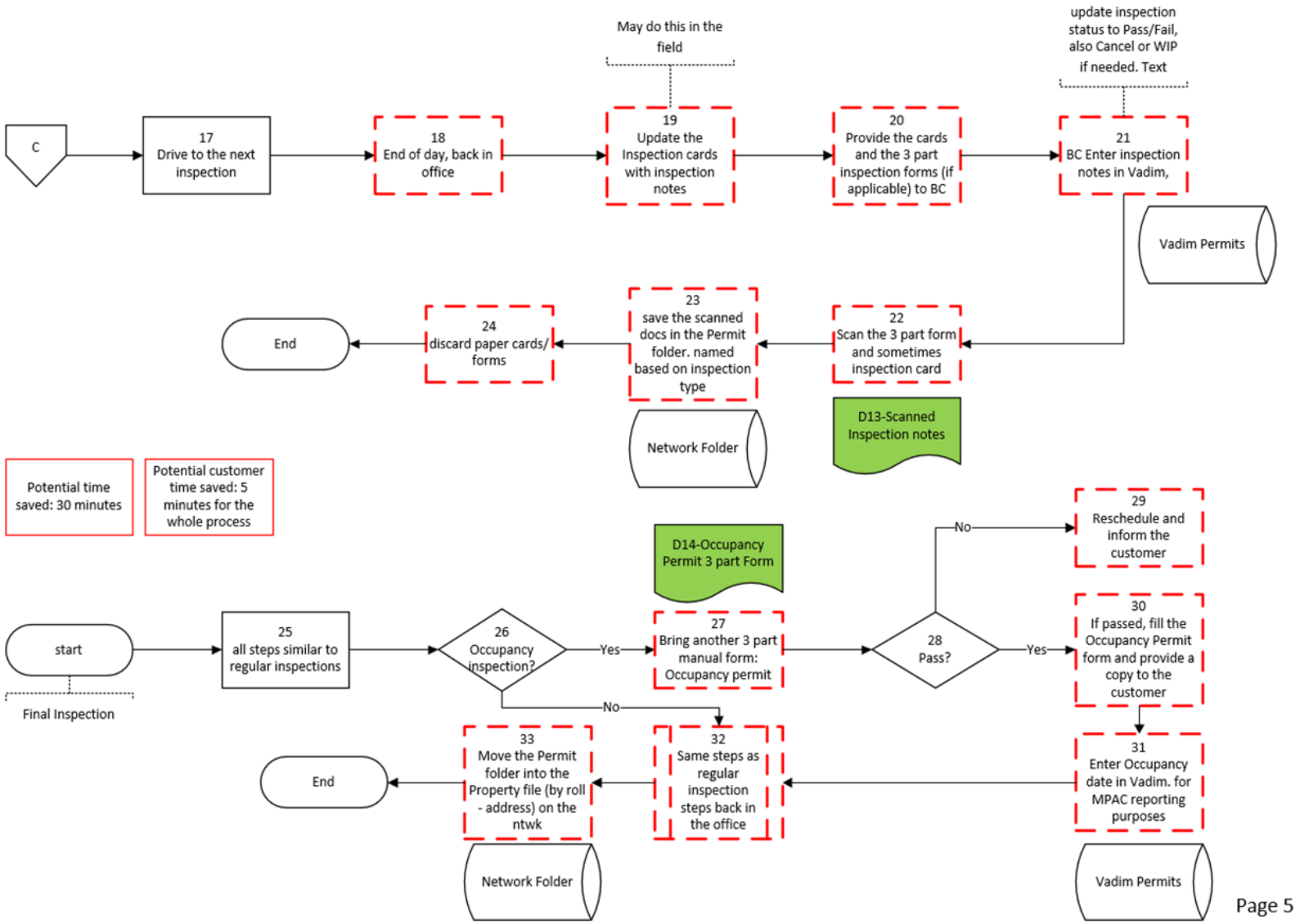


Potential staff time saved: 20 minutes

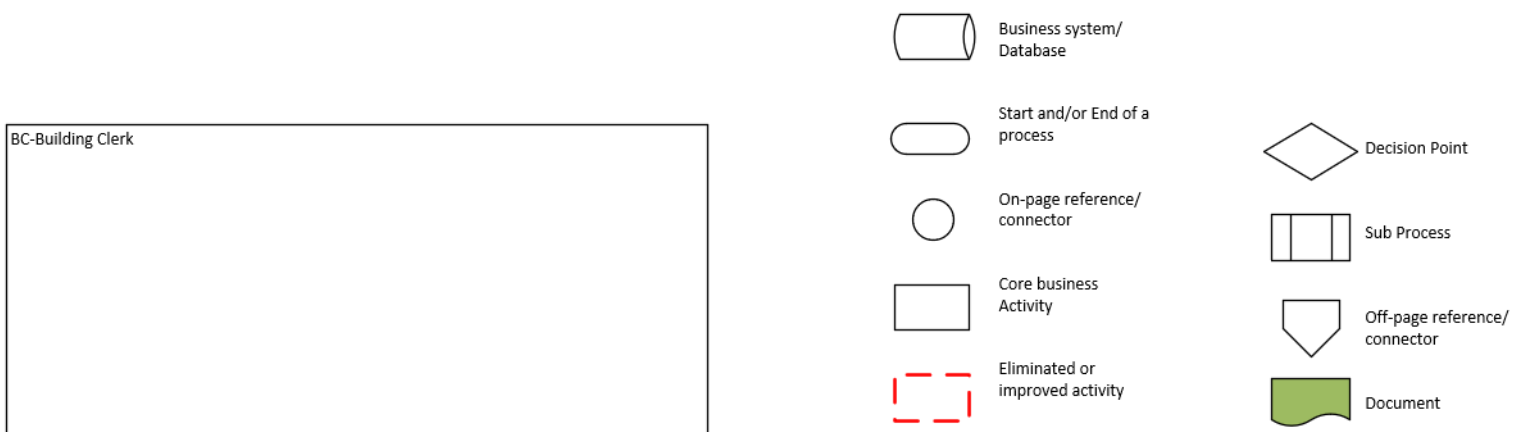
Potential customer time saved: 60 minutes for the whole process


start
Inspections
1
Customer initiates the inspection request, phone/text
BC personal cellphone# (majority) or email
2
Pull the permit in Vadim and Enter the Inspection request in Vadim
Vadim Permits
3
Enter the date/time (AM/PM)
4
Print the inspection card
Vadim Permits
(includes previous inspections, current request, date time etc.
D09-Inspection Card
May call and change the time slot If there are conflicts
5
Save in a temp folder
Network Folder
6
Add the inspection on Shared Outlook calendar
Email System
7
Provide the inspection cards to CBO daily (in the morning)
8
CBO Reviews the stack of inspection cards
9
Sort by geography
10
Separate AM and PM and put them in order for best route.
Take notes on a clipboard/back of the Inspection Card. Tablet available in the field with air card (not using yet: may be able to get info from the permit folder for approved plans)
11
Visit the location
12
Perform the inspection.
D10-Notepad
13
Discuss and communicate inspection status to the Contractor at the location
14
Take pictures if needed (e,g, defects) using phone
D11-Pictures
15
Provide status verbally to the customer or show and explain defects
16
May provide a written list of defects to the contractor
if Contractor present using the 3 part form
D12-Defficiency form
C
Potential time saved: 30 minutes

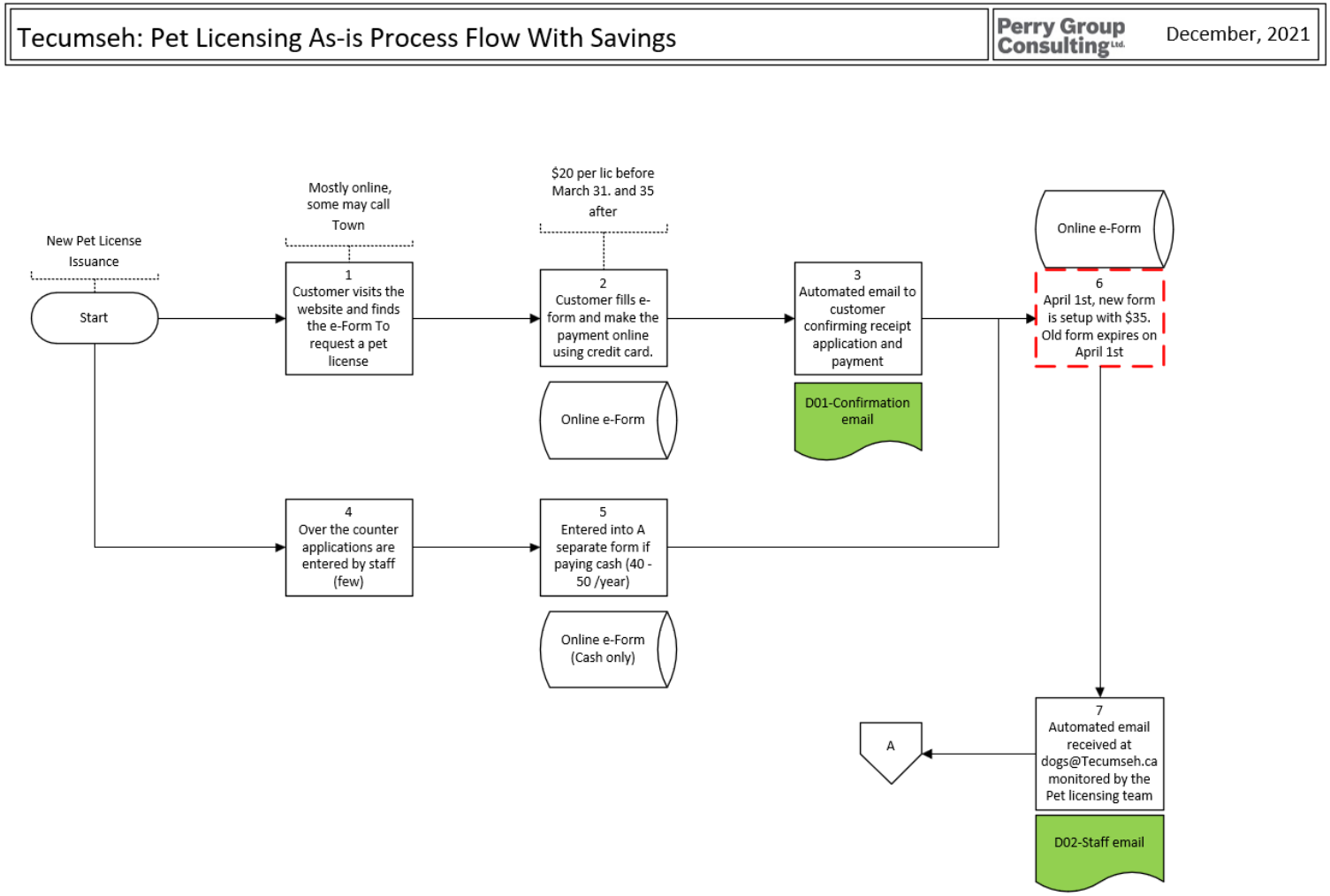
Page 4


May do this in the field
update inspection status to Pass/Fail, also Cancel or WIP if needed. Text
C
17 Drive to the next inspection
18 End of day, back in office
19 Update the Inspection cards with inspection notes
20 Provide the cards and the 3 part inspection forms (if applicable) to BC
21 BC Enter inspection notes in Vadim,
Vadim Permits
End
24 discard paper cards/ forms
23 save the scanned docs in the Permit folder. named based on inspection type
22 Scan the 3 part form and sometimes inspection card
Network Folder
D13-Scanned Inspection notes
Potential time saved: 30 minutes
Potential customer time saved: 5 minutes for the whole process
D14-Occupancy Permit 3 part Form
No
29 Reschedule and inform the customer
start
Final Inspection
25 all steps similar to regular inspections
26 Occupancy inspection?
Yes
27 Bring another 3 part manual form: Occupancy permit
28 Pass?
Yes
30 If passed, fill the Occupancy Permit form and provide a copy to the customer
No
33 Move the Permit folder into the Property file (by roll - address) on the ntwk
32 Same steps as regular inspection steps back in the office
31 Enter Occupancy date in Vadim. for MPAC reporting purposes
End
Network Folder
Vadim Permits

Page 5


BC-Building Clerk
Business system/ Database
Start and/or End of a process
On-page reference/ connector
Core business Activity
Eliminated or improved activity
Decision Point
Sub Process
Off-page reference/ connector
Document

Appendix 3 – Pet Licensing As-Is Process Maps With Savings



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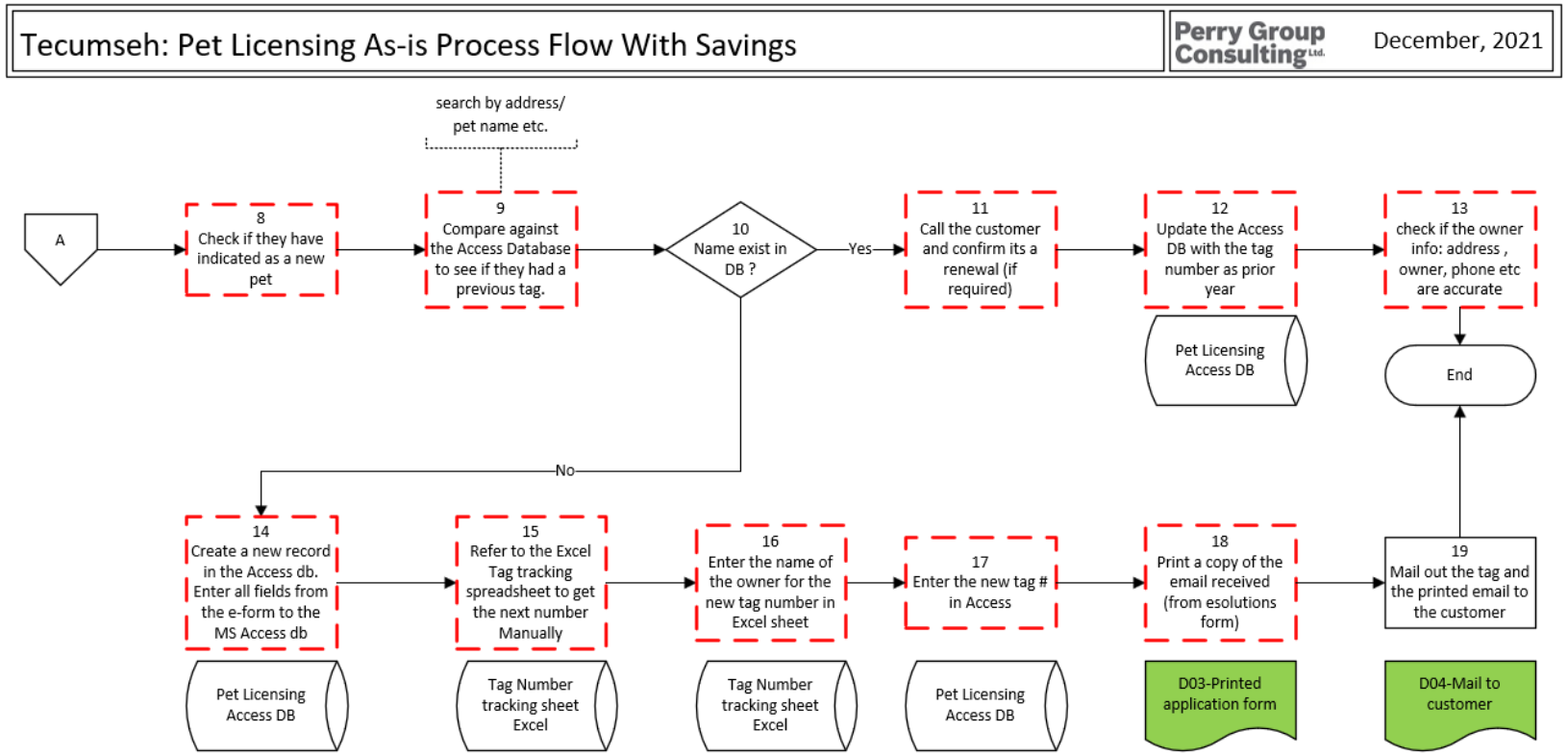
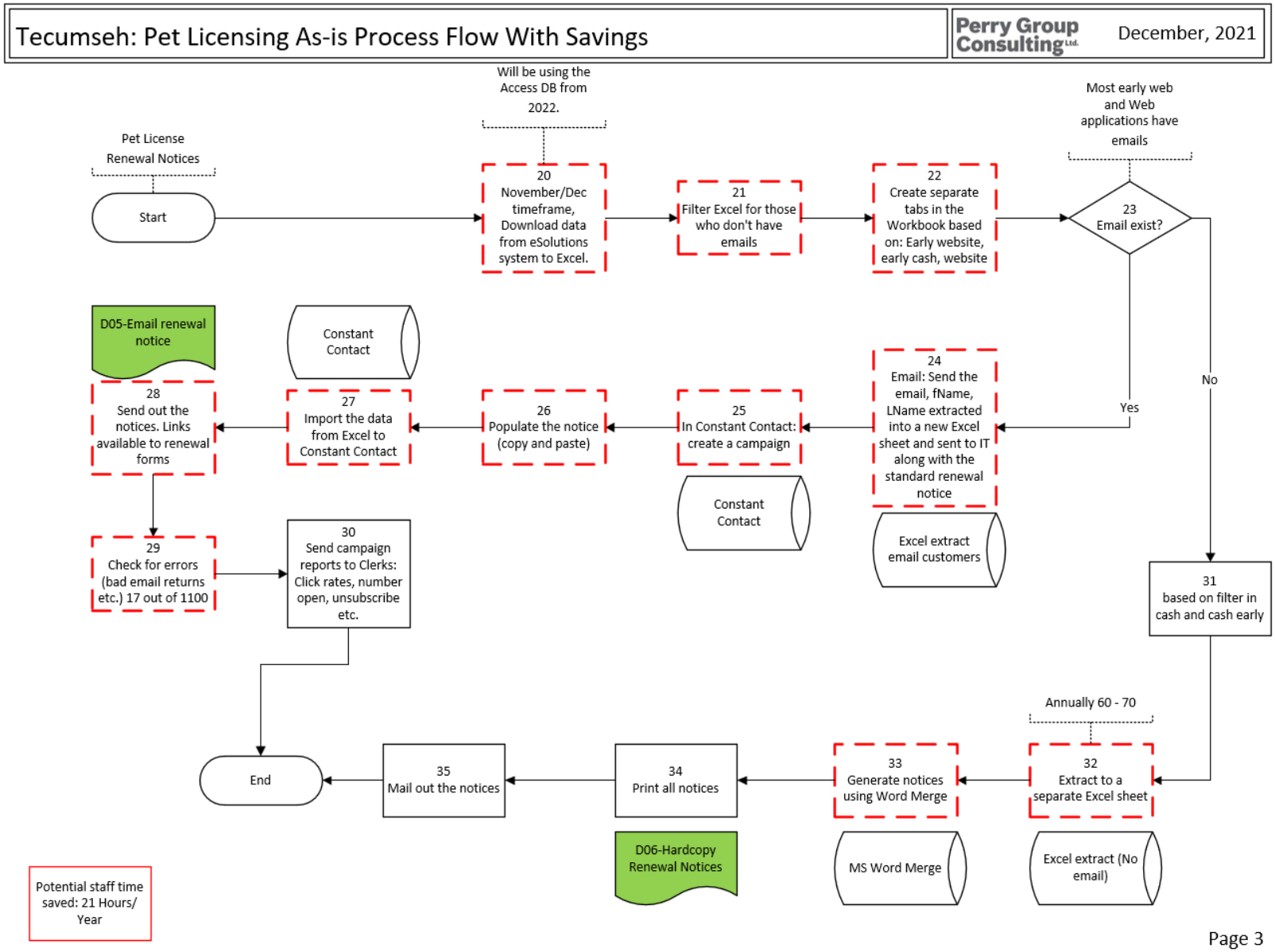
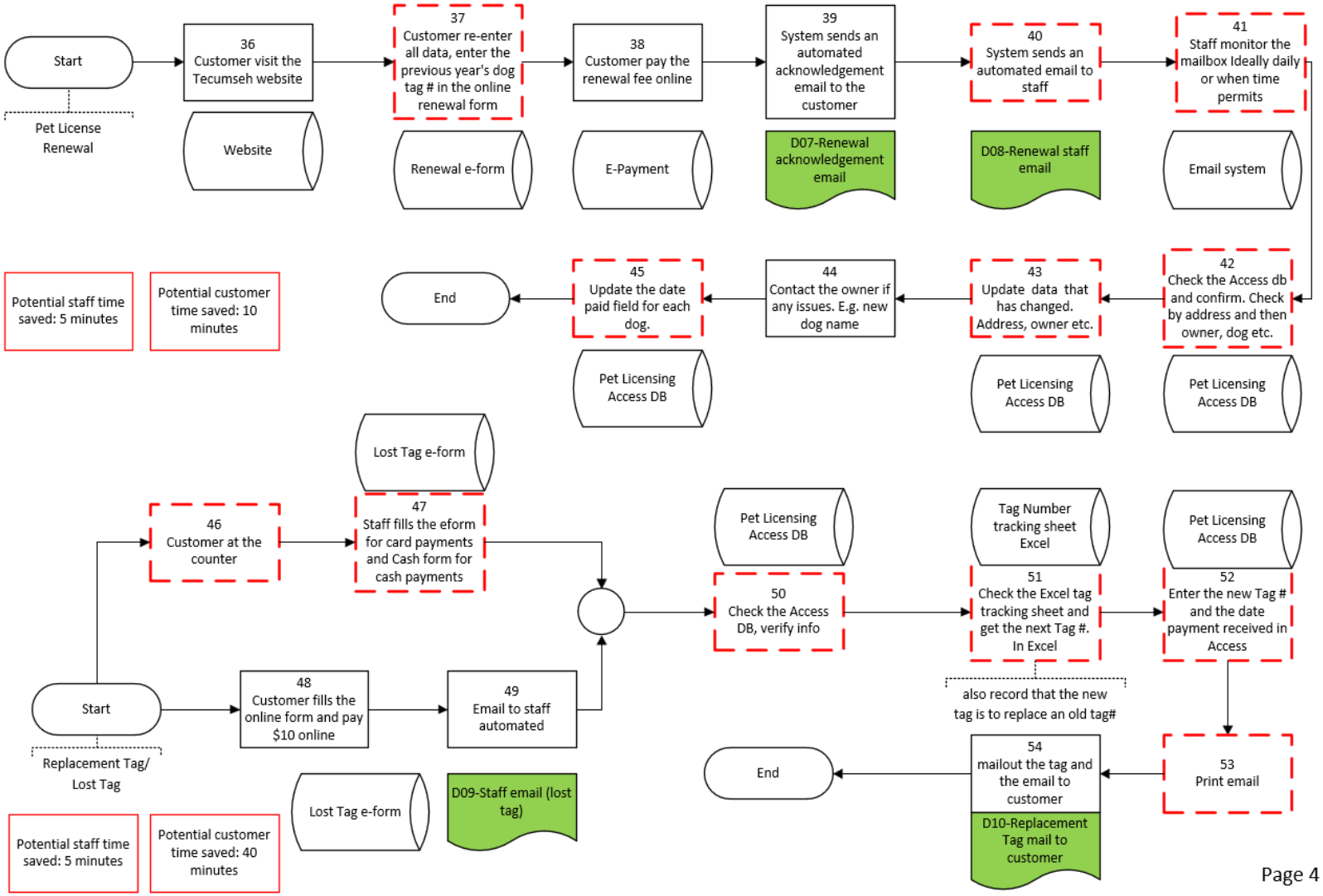
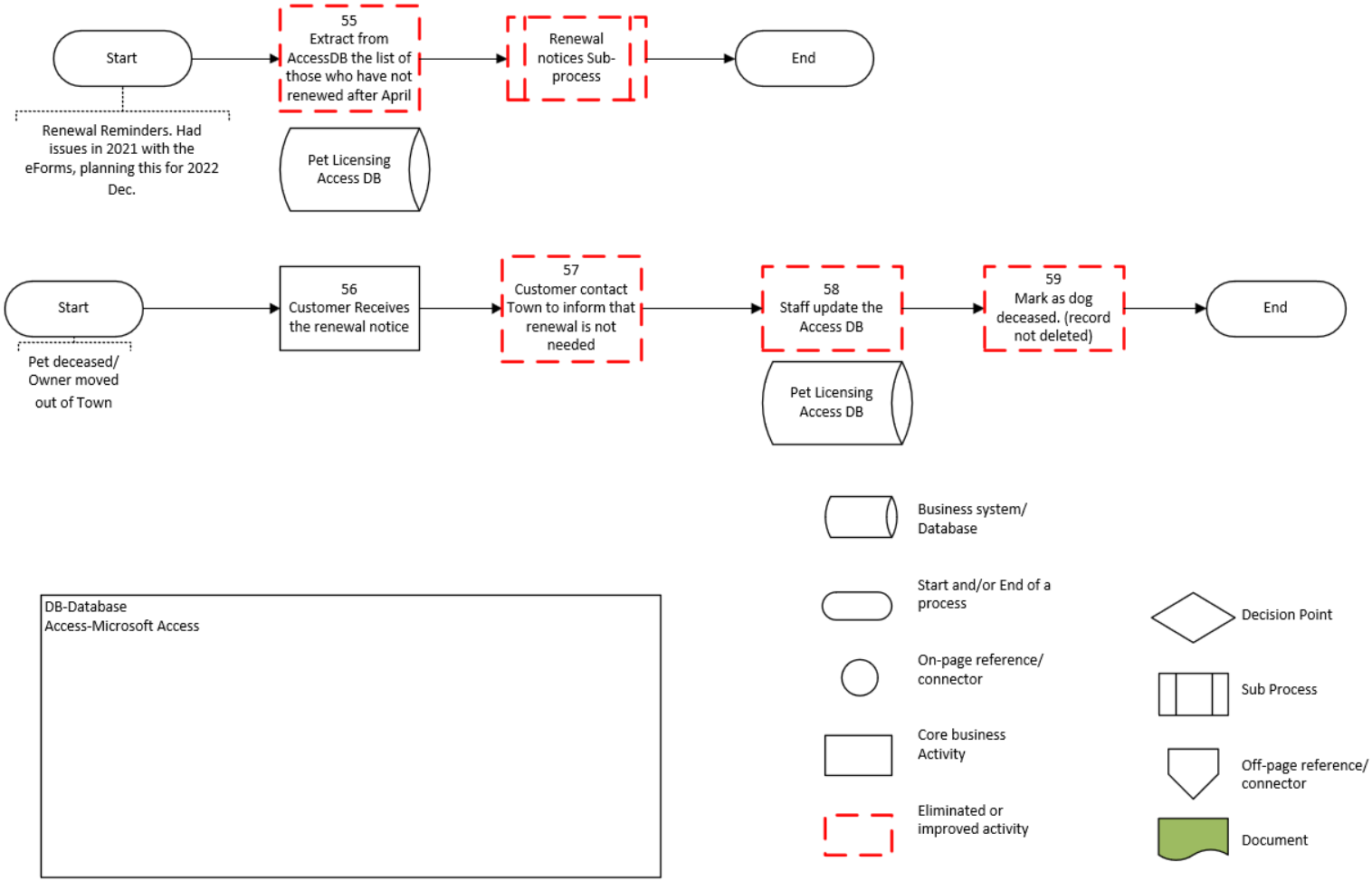

Tecumseh: Pet Licensing As-is Process Flow With Savings
Perry Group Consulting Ltd.
December, 2021
search by address/ pet name etc.
A
8
Check if they have indicated as a new pet
9
Compare against the Access Database to see if they had a previous tag.
10
Name exist in DB ?
Yes
11
Call the customer and confirm its a renewal (if required)
12
Update the Access DB with the tag number as prior year
Pet Licensing Access DB
13
check if the owner info: address , owner, phone etc are accurate
End
No
14
Create a new record in the Access db. Enter all fields from the e-form to the MS Access db
Pet Licensing Access DB
15
Refer to the Excel Tag tracking spreadsheet to get the next number Manually
Tag Number tracking sheet Excel
16
Enter the name of the owner for the new tag number in Excel sheet
Tag Number tracking sheet Excel
17
Enter the new tag # in Access
Pet Licensing Access DB
18
Print a copy of the email received (from esolutions form)
D03-Printed application form
19
Mail out the tag and the printed email to the customer
D04-Mail to customer
Potential staff time saved: 5 minutes


Tecumseh: Pet Licensing As-is Process Flow With Savings
Perry Group Consulting Ltd.
December, 2021
Will be using the Access DB from 2022.
Most early web and Web applications have emails
Pet License Renewal Notices
Start
20 November/Dec timeframe, Download data from eSolutions system to Excel.
21 Filter Excel for those who don't have emails
22 Create separate tabs in the Workbook based on: Early website, early cash, website
23 Email exist?
No
Yes
D05-Email renewal notice
Constant Contact
28 Send out the notices. Links available to renewal forms
27 Import the data from Excel to Constant Contact
26 Populate the notice (copy and paste)
25 In Constant Contact: create a campaign
24 Email: Send the email, fName, LName extracted into a new Excel sheet and sent to IT along with the standard renewal notice
Constant Contact
Excel extract email customers
29 Check for errors (bad email returns etc.) 17 out of 1100
30 Send campaign reports to Clerks: Click rates, number open, unsubscribe etc.
31 based on filter in cash and cash early
Annually 60 - 70
End
35 Mail out the notices
34 Print all notices
33 Generate notices using Word Merge
32 Extract to a separate Excel sheet
D06-Hardcopy Renewal Notices
MS Word Merge
Excel extract (No email)
Potential staff time saved: 21 Hours/ Year


Start
Pet License Renewal
36 Customer visit the Tecumseh website
Website
37 Customer re-enter all data, enter the previous year's dog tag # in the online renewal form
Renewal e-form
38 Customer pay the renewal fee online
E-Payment
39 System sends an automated acknowledgement email to the customer
D07-Renewal acknowledgement email
40 System sends an automated email to staff
D08-Renewal staff email
41 Staff monitor the mailbox Ideally daily or when time permits
Email system
42 Check the Access db and confirm. Check by address and then owner, dog etc.
Pet Licensing Access DB
43 Update data that has changed. Address, owner etc.
Pet Licensing Access DB
44 Contact the owner if any issues. E.g. new dog name
45 Update the date paid field for each dog.
Pet Licensing Access DB
End
Potential staff time saved: 5 minutes
Potential customer time saved: 10 minutes
Lost Tag e-form
46 Customer at the counter
47 Staff fills the eform for card payments and Cash form for cash payments
Pet Licensing Access DB
50 Check the Access DB, verify info
Tag Number tracking sheet Excel
51 Check the Excel tag tracking sheet and get the next Tag #. In Excel
also record that the new tag is to replace an old tag#
Pet Licensing Access DB
52 Enter the new Tag # and the date payment received in Access
53 Print email
54 mailout the tag and the email to customer
D10-Replacement Tag mail to customer
End
Start
Replacement Tag/ Lost Tag
48 Customer fills the online form and pay $10 online
49 Email to staff automated
D09-Staff email (lost tag)
Lost Tag e-form
Potential staff time saved: 5 minutes
Potential customer time saved: 40 minutes

Page 4


Start
55
Extract from AccessDB the list of those who have not renewed after April
Renewal notices Sub-process
End
Renewal Reminders. Had issues in 2021 with the eForms, planning this for 2022 Dec.
Pet Licensing Access DB
Start
56
Customer Receives the renewal notice
57
Customer contact Town to inform that renewal is not needed
58
Staff update the Access DB
59
Mark as dog deceased. (record not deleted)
End
Pet deceased/ Owner moved out of Town
Pet Licensing Access DB
DB-Database
Access-Microsoft Access
Business system/ Database
Start and/or End of a process
On-page reference/ connector
Core business Activity
Eliminated or improved activity
Decision Point
Sub Process
Off-page reference/ connector
Document

Appendix 4 – Service Selection Criteria and Scores

The most common municipal services list sorted in descending order by the total priority score.

Scoring Criteria Legend

A – Annual transaction numbers: 3 (over 500 transactions), 2 (500-100), 1 (less than 100).

B – Most requested online service by citizens: 3 (high customer demand), 2 (medium demand), 1 (low demand).

C – Most requested internal service by staff: 3 (high staff demand), 2 (medium demand), 1 (low demand).

D – Benefit to customer/staff: 3 (visits vs. online), 2 (semi-automated), 1 (no change).

E – Success rating: 3 (low risk, low complex), 2 (medium risk, medium complex), 1 (high risk, high complex).

F – Readiness: 3 (budget approved and staff ready), 2 (either budget OR the staff is available), 1 (no budget and staff is not ready).

G – Number of departments benefited: 3 (organization-wide), 2 (multiple departments), 1 (single department/division).

Service	Description	A	B	C	D	E	F	G	Total Score
Communications	External communications	2	3	3	3	3	3	3	**20**
Integrated Service Delivery	311/Customer Service	3	3	3	3	2	3	3	**20**
Utility Infrastructure Locating	Locates	3	3	3	3	3	3	2	**20**
Animal Registration	Animal licensing, adoption	3	3	3	3	3	2	2	**19**
Alarm Registration	Security and Fire Alarm registrations	3	3	3	3	3	2	2	**19**

Service	Description	A	B	C	D	E	F	G	Total Score
Building Permission and Enforcement	Building Permits	3	2	3	3	3	3	2	**19**
Financial Management	Procure-to-Pay includes Accounts Payable	3	3	3	3	2	2	3	**19**
Financial Management	Accounts Receivable	3	3	3	3	2	2	3	**19**
Information Technology Access	IT helpdesk services	3	1	3	3	3	3	3	**19**
Claims Management	Claim submission	1	3	3	3	3	3	3	**19**
Council Support	Council/Committee meetings, agenda/minutes management	1	3	3	2	3	3	3	**18**
Development Approval	Subdivision, Zoning, Site Plan, Consent, etc. application process	2	3	3	3	2	3	2	**18**
Drinking Water Supply	Water connections, subsidy applications (backwater valve, drain disconnect, etc.) disconnections, meter reading and billing, bulk water applications	3	3	3	3	2	2	2	**18**

Service	Description	A	B	C	D	E	F	G	Total Score
Emergency Management	Emergency declarations, communications	1	3	2	3	3	3	3	**18**
Human Resource Management	Recruitment (internal and external), onboarding, performance, benefits and pension, learning, exit management processes, contracts, legislative requirements established under the ESA and OH&S as well as WSIB	3	2	3	3	2	2	3	**18**
Property Standards By-Law Enforcement	Property standards/clean and clear complaints process	2	3	3	3	2	3	2	**18**
Taxation	Tax account enquiries, tax certificates, tax billing, etc.	3	3	3	3	2	3	1	**18**
Transit	Transit tickets, schedules	3	3	3	2	3	2	2	**18**
Asset Access	Asset service requests and work orders including preventive maintenance	3	3	3	2	2	2	2	**17**
Financial Management	Payroll process	3	1	3	3	2	2	3	**17**
Fire Permission	Burn permits	1	3	3	3	3	3	1	**17**

Service	Description	A	B	C	D	E	F	G	Total Score
Vital Rights Registration	Birth, death registration	1	3	3	3	3	3	1	**17**
Kennel Licenses	Kennel licensing	1	2	3	3	3	2	2	**16**
Marriage Licensing	Marriage license issuance	1	3	2	3	3	3	1	**16**
Communications	Internal communications	1	1	2	2	3	3	3	**15**
Snow and Leaf Angels	Register of volunteers and persons in need of assistance	1	2	2	3	3	2	1	**14**
Board and Committee Applications	Applications to become a member of a committee	1	1	2	3	3	2	2	**14**
Council Services	Conflict of interest and delegations	1	1	2	3	3	2	2	**14**
Roadway Access	Road occupancy, oversize vehicles, driveway, curb cuts, culverts, sanitary/sewer, etc. permits	1	2	2	2	3	2	2	**14**
Award Nominations	Nominations for Township awards	1	1	2	3	3	2	1	**13**
Cat Spay and Neuter	Voucher program	1	1	2	3	3	2	1	**13**

Service	Description	A	B	C	D	E	F	G	Total Score
Freedom of Information Requests	Information requests	1	1	2	3	3	2	1	**13**
Fire Safety / Prevention	Fire inspections	1	2	2	3	2	2	1	**13**
Event Permission	Liquor permits, road closure permits, park permits	1	1	1	2	3	2	2	**12**
Special Event Hosting	Special event hosting	1	1	1	3	2	2	2	**12**
Business Licensing	Kennel licensing	1	1	2		3	2	2	**11**

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