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This final report is based on information and documentation that was made available to KPMG at the date of this report. KPMG has not audited nor otherwise attempted to independently verify the information provided unless otherwise indicated. Should additional information be provided to KPMG after the issuance of this report, KPMG reserves the right (but will be under no obligation) to review this information and adjust its comments accordingly.

Pursuant to the terms of our engagement, it is understood and agreed that all decisions in connection with the implementation of advice and recommendations as provided by KPMG during the course of this engagement shall be the responsibility of, and made by, the City of Kitchener. KPMG has not and will not perform management functions or make management decisions for the City of Kitchener.

This report may include or make reference to future oriented financial information. Readers are cautioned that since these financial projections are based on assumptions regarding future events, actual results will vary from the information presented even if the hypotheses occur, and the variations may be material.

Comments in this report are not intended, nor should they be interpreted, to be legal advice or opinion.

KPMG has no present or contemplated interest in the City of Kitchener nor are we an insider or associate of the City of Kitchener. Accordingly, we believe we are independent of the City of Kitchener and are acting objectively.
Project Overview

**Project Objectives**

We understand that the City of Kitchener undertook a review of its development service in 2019 and have since completed many improvements including the implementation of Bluebeam Revu software to digitize its site plan review process and upgrading to AMANDA 7 software. KPMG was engaged by the City of Kitchener to conduct a review of the development review process to identify additional opportunities to modernize the process and implement a fully digital transformation solution.

Overall, the project:

1. Identified opportunities to achieve an end-to-end integrated and digital transformation solution for the development review process.
2. Identified opportunities to eliminate process inefficiencies.
3. Realized quick wins from existing tools and capabilities implemented as a result of the 2019 review.
4. Utilized lean six sigma methodology to uncover additional process inefficiencies and areas of improvement.
5. Identified qualified vendors for recommendations that are beyond the capabilities of existing software within the City.

**Project Principles – What is Important to Us?**

- City staff were engaged and their knowledge and expertise were levered to arrive at recommended actions through a transparent, participative and inclusive process facilitated by KPMG.
- The digital transformation of the development review process was conducted in a way that engages City employees through workshops and knowledge transfer sessions.
- Wherever possible, transfer knowledge and necessary “tools” to City staff to enable them to better develop their own solutions to operational and process issues and challenges over time.
- The framework and approach is based on leading practices of other municipalities, or other levels of government experience and/or private sector.
- Lastly, this was not an audit nor a deeper-dive operational review. This was a review to build on successes and identify opportunities to improve the efficiency and effectiveness of how the City delivers services to the citizens of Kitchener.

**Project Drivers – What problem are we trying to solve?**

- In 2019, the City undertook a review of its development services and implemented a number of process improvements. However, the City realizes that additional opportunities exist to modernize the development review processes and create a fully integrated file management solution.
- The City hopes to achieve an end-to-end integrated and digital transformation solution for its development review process to delivery a seamless customer experience that leverages the City’s existing software platforms and eliminates process inefficiencies.
This engagement commenced on May 19, 2021, and was completed when the draft final report was submitted to the City on September 24, 2021. The diagram below depicts the key phases outlined as per our Project Charter.
## Stakeholder Engagement

### The Engagement Process

- As part of the City of Kitchener Digital Transformation Solution project, key stakeholders were engaged to complete a thorough analysis of the current state of the paper-based and digital file management practices of the City’s development review process. In addition, process mapping sessions were facilitated to uncover additional process inefficiencies and areas of improvement.

- The project engaged 30 City stakeholders to produce a holistic current state assessment for the development review process.

- In total, 5 one-on-one interviews, 4 current state workshops, 4 current state validation sessions and 5 process mapping workshops were conducted.

### Building Department
- Manager, Building (2)
- Manager, Permits
- Municipal Building Official III
- Municipal Building Official Technical Specialist
- Building Permit Expeditor

### Engineering Department
- Manager, Development Engineering
- Project Manager Development Engineering (2)
- Engineering Technologist
- Engineering Development Inspector
- Program Assistant

### Planning Department
- Manager, Site Development & Customer Service
- Heritage Planner
- Urban Designer
- Senior Planner
- Planner
- Digital Transformation and Visualization
- Program Assistant
- Admin. Assistant (2)

### TIS
- Manager, Digital Transformation & Strategy
- Manager, Service Coordination and Improvement
- AMANDA Analyst Developer
- GIS Technologist
- Digital Transformation Associate
Process Mapping Workshops

Process Mapping

- Process mapping workshops were conducted with our Lean Six Sigma Black Belt subject matter expert to uncover additional process inefficiencies and areas for improvement.
- The following processes were identified for review. Processes without a City developed process map were mapped out during the workshop and can be found in Appendix A.

1. Site Plan Approval
2. Building Permit Approval
3. Minor Variance/Consent Applications
4. Site Alteration Permits
5. OPA/ZBA/Subdivisions/Condo Process
KPMG’s Target Operating Model (TOM) framework was used to categorize initial review considerations. The six TOM dimensions provide a consistent means and structure to evaluate existing development review processes, validate business goals and objectives, and define and evaluate business improvement opportunities.

### Service Delivery Model
- Identify required delivery tasks and ensure effective service
  - Information Strategy
  - Business Information Technology
  - Service Support
  - Internal & External Partner Management

### Process
- Map high-level requirements to core development review processes.
  - Service Integration & Coordination
  - Manual Processes & Workarounds
  - Authority, Approvals, Circulation

### Data & Analytics
- Enterprise-wide data management approach that underpins the technology architecture
  - Centralized Data Access
  - Geocentric & Machine Readable Data
  - Development File Standards
  - Dashboards
  - Analytics Capability

### Technology
- Identify business requirements and digitization opportunities to ensure the development review process is future-enabled.
  - Technology Architecture
  - Process / Information Triggers
  - Mobile Workforce, Innovative Technologies

### People
- Identify required capabilities and personnel skills to achieve long-term goals.
  - Leadership & Culture
  - Organizational Design
  - Talent Strategy & Capability
  - Change Management
  - Collaboration & Networking

### Governance
- Business areas must work collaboratively to ensure effective development review processes
  - Process Governance
  - Data Governance
  - Policy Governance
  - Document Governance
  - Performance Standards
During consultations with City staff, a number of pain points were identified as barriers to efficient and effective development service processes. These pain points were summarized further using the 6 layers of the Target Operating Model to identify specific opportunities for improvement. In total, 30 observations were identified within Kitchener’s development service process.

Over the next 12 months, the implementation of the recommendations to address each observation will help to achieve the City’s target state goal for each TOM dimension.

<table>
<thead>
<tr>
<th>TOM Dimension</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Delivery Model (2)</td>
<td>Development Information Strategy, Internal &amp; External Partner Management</td>
</tr>
<tr>
<td>Process (4)</td>
<td>Manual Processes &amp; Workarounds, Service Integration &amp; Coordination, Business Information Technology Service Support</td>
</tr>
<tr>
<td>Data &amp; Analytics (7)</td>
<td>Centralized Data Access, Development File Standards, Dashboards &amp; Business Intelligence, Analytics Capability</td>
</tr>
<tr>
<td>Technology (6)</td>
<td>Technology Architecture, Mobile Workforce, Innovative Technologies, Intelligent Automation &amp; Augmentation</td>
</tr>
<tr>
<td>People (4)</td>
<td>Leadership &amp; Culture, Organizational Design &amp; Governance, Talent Strategy &amp; Capability, Collaboration &amp; Networking, Change Management</td>
</tr>
<tr>
<td>Governance (7)</td>
<td>Policy/Process Governance, Data Governance, Document Governance, Service Standards</td>
</tr>
</tbody>
</table>
The recommendations in this report will assist the City in increasing the digital maturity of each TOM dimension to achieve the desired target state for the development service. Specifically, the recommendations will help the City achieve the following objectives:

1. Establish effective governance
   - The development and implementation of an interdepartmental development service governance structure and information strategy that enables the effective, efficient, and accountable use of information and tools to support delivery outcomes.

2. Manage organizational "change fatigue"
   - The implementation of the change management framework and communication plan will help the City deliver the full value of initiatives and help staff understand the case for change within the department.

3. Rationalize technology architecture
   - Review all technology architecture to determine actual business needs and capabilities prior to finding technology solutions.

4. Increase process efficiency and effectiveness
   - Identify and eliminate manual workarounds to technology systems resulting from challenge cycles and increase service integration, coordination, and collaboration.

5. Execute the shared vision for development services
   - Execution of the City’s shared vision of a City For Everyone. Develop and mature digital development services processes to provide a high level of service to all stakeholders.
City of Kitchener – Digital Transformation Solution

Prioritization of Suggested Recommendations

Suggested recommendations have been mapped for *impact vs effort* to help prioritize activities. The order that recommendations should be implemented would be top left quadrant (low effort, high impact) to bottom left quadrant (low effort, low impact) and top right quadrant (high effort, high impact) down to bottom right quadrant (high effort, low impact). Those in the bottom right quadrant would be considered to be optional as a result of the potential effort required versus the potential benefit derived.

**Legend**

- Service Delivery
- Process
- Data & Analytics
- Technology
- People
- Governance

**Suggested Actions**

1. Develop a detailed development service information strategy
2. Establish internal review timelines for application submission
3. Establish, document and communicate standardized development review processes
4. Establish standard procedures and accountability for performing development service activities
5. Enhance application tracking procedures through improved use of tools
6. Review current data storage solutions to determine the single source of truth.
7. Equip development review employees with analytics tools and training.
8. Update development review service job descriptions to include analytics components
9. Develop and implement standardized development review templates
10. Develop a data dictionary to assist key stakeholder with data entry into technology systems
11. Modernize the existing development service technology architecture.
12. Review the capabilities of the existing online portals
13. Review the capabilities of existing records management tools
14. Develop and implement a technology strategy
15. Consider a review of mobile workforce technologies
16. Define and document development review process related roles and responsibilities
17. Review the capacity for key positions within the TIS AMANDA support team
18. Establish formal training and learning opportunities for staff
19. Establish dedicated resources to lead, monitor and report on the change.
20. Develop a communications strategy
21. Establish an overarching development services governance structure
22. Establish a formal continuous improvement program
23. Develop a mandatory escalation protocol
24. Establish a performance measurement framework
Suggested recommendations that are low effort, high impact are considered quick wins.

**Suggested Actions**

- **2** Establish internal review timelines for application submission
- **19** Establish dedicated resources to lead, monitor and report on the change.
- **20** Develop a communications strategy
- **21** Establish an overarching development services governance structure
- **23** Develop a mandatory escalation protocol

**Legend**

- **Service Delivery**
- **Process**
- **Data & Analytics**
- **Technology**
- **People**
- **Governance**
City of Kitchener – Digital Transformation Solution

Estimated time and cost savings

This slide presents the estimated annual time and cost savings associated with each recommendation. Some of the recommendations may indirectly result in cost savings. For example, implementation of a thorough communication strategy will result in stakeholder buyer in, higher productivity and more efficiency; thereby creating time and cost efficiencies. We also anticipate ongoing cost savings with the continuous improvement initiatives.

<table>
<thead>
<tr>
<th>#</th>
<th>Recommendation</th>
<th>Estimated Time Savings</th>
<th>Estimated Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop a detailed development services information strategy</td>
<td>&gt; 35 Hours</td>
<td>&gt;$50,000</td>
</tr>
<tr>
<td>2</td>
<td>Establish internal review timelines for application submission</td>
<td>25 - 36 Hours</td>
<td>&lt;$25,000</td>
</tr>
<tr>
<td>3</td>
<td>Establish, document and communicate standardized development review processes</td>
<td>15 - 25 Hours</td>
<td>&gt;$50,000</td>
</tr>
<tr>
<td>4</td>
<td>Establish standard procedures and accountability for performing development services activities</td>
<td>&gt; 35 Hours</td>
<td>&gt;$50,000</td>
</tr>
<tr>
<td>5</td>
<td>Enhance application tracking procedures through improved use of tools</td>
<td>&gt; 35 Hours</td>
<td>&lt;$25,000</td>
</tr>
<tr>
<td>6</td>
<td>Review current data storage solutions to determine the single source of truth</td>
<td>&gt; 35 Hours</td>
<td>&gt;$50,000</td>
</tr>
<tr>
<td>7</td>
<td>Equip development review employees with analytics tools and training</td>
<td>15 - 25 Hours</td>
<td>$25,000 - $50,000</td>
</tr>
<tr>
<td>8</td>
<td>Update development review service job descriptions to include analytics components</td>
<td>15 - 25 Hours</td>
<td>&lt;$25,000</td>
</tr>
<tr>
<td>9</td>
<td>Develop and implement standardized development review templates</td>
<td>15 - 25 Hours</td>
<td>&lt;$25,000</td>
</tr>
<tr>
<td>10</td>
<td>Develop a data dictionary to assist key stakeholder with data entry into technology systems</td>
<td>15 - 25 Hours</td>
<td>&lt;$25,000</td>
</tr>
<tr>
<td>11</td>
<td>Modernize the existing development services technology architecture</td>
<td>&gt; 35 Hours</td>
<td>&gt;$50,000</td>
</tr>
<tr>
<td>12</td>
<td>Review the capabilities of existing records management tools</td>
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</tr>
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<td>13</td>
<td>Review the capabilities of the existing online portals</td>
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<td>14</td>
<td>Develop and implement a technology strategy</td>
<td>15 - 25 Hours</td>
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</tr>
<tr>
<td>15</td>
<td>Consider a review of mobile workforce technologies</td>
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<tr>
<td>16</td>
<td>Define and document development review process related roles and responsibilities</td>
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<tr>
<td>17</td>
<td>Review the capacity for key positions within the TIS AMANDA support team</td>
<td>15 - 25 Hours</td>
<td>$25,000 - $50,000</td>
</tr>
<tr>
<td>18</td>
<td>Establish dedicated resources to lead, monitor and report on the change</td>
<td>5 - 10 Hours</td>
<td>$25,000 - $50,000</td>
</tr>
<tr>
<td>19</td>
<td>Develop a communications strategy</td>
<td>25 - 35 Hours</td>
<td>$25,000 - $50,000</td>
</tr>
<tr>
<td>20</td>
<td>Establish formal training and learning opportunities for staff</td>
<td>25 - 35 Hours</td>
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</tr>
<tr>
<td>21</td>
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<td>&gt; 35 Hours</td>
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<td>22</td>
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<td>23</td>
<td>Develop a mandatory escalation protocol</td>
<td>25 - 35 Hours</td>
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<tr>
<td>24</td>
<td>Establish a performance measurement framework</td>
<td>25 - 35 Hours</td>
<td>&lt;$25,000</td>
</tr>
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</table>
The recommendations in this report will assist the City in achieving the targeted future state digital maturity for development services. As the City’s development services department continues to mature, the following activities would indicate that the City has transitioned from the targeted future state to a leading practice organization:

### Service Delivery Model

There is a centralized support community, executing the aligned vision for development services. Typically, this is characterized by a Centre of Excellence (CoE) providing governance across development services (e.g., consistency across previously siloed departments) and a Community of Practice (CoP) coordinating and executing development services activities. Takes time to mature and realize the coordinated culture.

### Process

Transition of thinking from digitizing manual processes (e.g., what we need to do in the short-term) to the digitalization of the process (e.g., long-term objectives). This includes re-imagining, continuously improving, and refining processes and results to enable insights to deliver outcomes while adapting to changes in demands/requirements.

### Data and Analytics

Development services has developed a harmonized data model that brings in data from across the organization into development services. Significant effort is required to build data models and formal data standards to ensure consistency and harmony of data driven activities within the department.

### Technology

Collective groups are collaborating and working together to execute a shared vision and direction. Development stakeholders have been enabled with technology with the next step to build capacity and capabilities. The goal of technology architecture is to support current and on-going business needs, as well as have the ability to adapt to evolving demands.

### People

Development services stakeholders have been enabled with focus shifted to creating capacity and capability. This level of maturity will require development service stakeholder to develop a new digital mindset with the skills, knowledge, and experience to make required improvements and change an on-going reality.

### Governance

Once governance items and challenges are further understood, and development services processes are documented, automated solutions (e.g., algorithms, AI, etc.) are leveraged to identify risks and challenges as work occurs (predictive analysis). Risk-based approach is applied to all governance decisions.