

The City of Brampton Value-for-Money Audit of the Accela Workflow Tool

Final Audit Report

November 20, 2023 – 23-5958

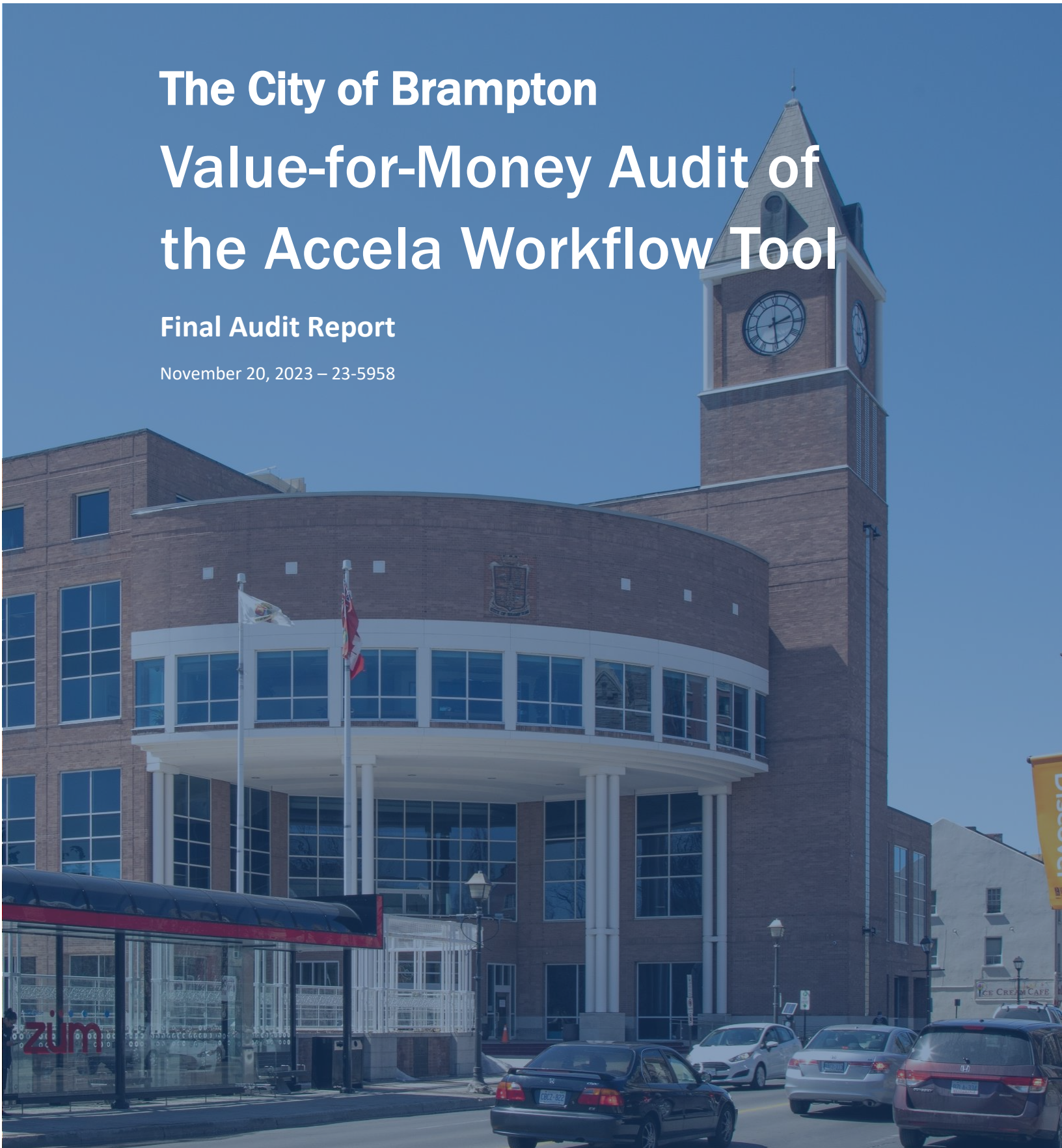


Table of Contents

Executive Summary	iv
1.0 Introduction & Audit Context	1
1.1 Audit Context	1
1.2 Brampton’s Current DAP Model and Accela’s Role	4
1.3 Two-Tier DAP, Bill 112, and Accela’s Role	5
2.0 Purpose/Scope of the Value for Money Audit and Accela Origins	6
2.1 Purpose of the VFM Audit	6
2.2 Origins of the Accela Platform in Brampton.....	6
2.3 Overview of Accela Components/Functionality	8
3.0 VFM Audit Methodology	10
3.1 Audit Planning Components	11
3.2 Audit Approach (Execution).....	11
3.2.1 Semi-Structured Interviews	12
3.2.2 Diagnostic Testing of Accela	12
3.2.3 Net Present Value Calculation for Replacing/Upgrading Accela	14
4.0 Audit Observations and Findings: Objectives 1 to 6	15
4.1 Audit Objective #1, Selection Criteria	15
4.1.1 Audit Objective 1 – Observations	16
4.1.2 Audit Objective 1 – Findings	18
4.1.3 Objective 1 – Recommendations	19
4.2 Audit Objective #2, Goal Setting.....	20
4.2.1 Audit Objective 2A – Observations	20
4.2.2 Audit Objective 2B – Observations	26

4.2.3	Audit Objective 2C – Observations	31
4.2.4	Audit Objective 2 – Findings	32
4.2.5	Audit Objective 2 – Recommendations	33
4.3	Audit Objective #3, Comparison to Peers.....	35
4.3.1	Audit Objective 3 – Observations	36
4.3.2	Audit Objective 3 – Findings	43
4.3.3	Audit Objective 3 – Recommendations	45
4.4	Audit Objective #4, Performance Improvements	46
4.4.1	Audit Objective 4 – Observations	46
4.4.2	Audit Objective 4 – Findings	55
4.4.3	Audit Objective 4 – Recommendations	56
4.5	Audit Objective #5, Underutilization Risk	58
4.5.1	Audit Objective 5A – Observations	58
4.5.2	Audit Objective 5A – Findings	64
4.5.3	Audit Objective 5A – Recommendations	65
4.5.4	Audit Objective 5B – Observations	66
4.5.5	Audit Objective 5B – Findings	70
4.5.6	Audit Objective 5B – Recommendations	72
4.6	Audit Objective #6, Functionality of Alternatives.....	74
4.6.1	Audit Objective 6 – Observations	75
4.6.2	Audit Objective 6 – Findings and Recommendations	81
5.0	Audit Observations and Findings: Objective 7	83
5.1	Audit Objective #7, Net Present Value.....	83
5.1.1	Construction of the Net Present Value Financial Analysis.....	83
5.1.2	Scenarios Used in Financial Analysis.....	85
5.1.3	Assumptions Used in Financial Analysis	86
5.1.4	Audit Objective 7 – Observations	91
5.1.5	Audit Objective 7 – Findings	92

5.1.6	Audit Objective 7 – Recommendations	92
6.0	All Audit Recommendations and Conclusion	94
6.1	Recommendations	94
6.2	Conclusions	96

Executive Summary

Acknowledgement

The Audit Team would like to acknowledge and thank staff and management for their cooperation and contributions during this Audit that helped facilitate our investigation.

Introduction

This report documents the City's 2023 Value-For-Money Audit of the Accela Workflow Tool which was conducted by the Audit Team of Dillon Consulting Limited and Performance Concepts Consulting Limited (Audit Team).

Purpose/Scope

Brampton currently faces significant challenges in the delivery of the development approval process (DAP). The Accela Value-for-Money Audit will play an important role in managing the City's service delivery performance risk in the face of unprecedented regulatory changes and forecasted approvals volumes.

In February, 2023, Brampton City Council passed motion PDC014-2023, which reads:

Whereas leveraging technology – in particular Accela was a key theme for opportunities to improve identified in all three studies – end-to-end review, urban design review and Committee of Adjustment; and

Whereas with the significant growth planned for Brampton, combined with our need to ensure we are using the best technology that meets customer service and financially prudent outcomes for the City;

Therefore, be it resolved that staff be directed to undertake a value-for-money review of Accela and report back to Council on the outcome on the review.

The Audit Scope is the functionality of the software platform known as the Accela workflow tool.

The parameters set out in the 2023 Value-For-Money Accela Audit Plan are consistent with the Federal Auditor General’s Value-for-Money Audit Manual (January 2000). They include an Audit Charter, preparation of an Audit Plan, and preparation of this Audit Report. A summary of the findings from each Audit Objective is provided below.

Summary of Findings by Objective

Audit Objective #1, Selection Criteria: The RFP through which Accela was purchased did include criteria that meet the Auditor’s expectations for a high-performance DAP system.

Audit Objective #2, Goal Setting: Accela on-premises requires complex reports to be generated using other software; however, with Accela Cloud on the horizon, the Audit Team has observed that the native reporting through Accela Insight very adeptly show files that are on time and files that are late, and can also identify files that are coming due.

Audit Objective #3, Comparison to Peers: Brampton is underinvested in Accela for the Committee of Adjustment function, time-tracking of development files (“clock on/clock off”), document management, the engineering workflows of final (phased) Plan of Subdivision applications, and upkeep of the platform based on end-user feedback.

Audit Objective #4, Performance Improvements: Brampton’s usage of Accela have revealed several challenges that hinder efficiency and productivity – very little of which is inherently due to failings of the software platform itself.

Audit Objective #5, Underutilization Risk: There is some inconsistent use of Accela. The Audit Team recognizes that the ethos at Brampton is to work with the applicant – so if workflow gaps are updated (or a subworkflow designed) then that would achieve continuity of file tracking.

Audit Objective, #6, Functionality of Alternatives: The configuration benefits of the commercially available DAP software platforms typically used in Ontario are so common that the Audit Team finds that there is no compelling functionality that would justify replacing Accela with two other possible platforms we considered.

Audit Objective #7, Net Present Value: The Audit Team finds that, based on the assumptions noted previously, the results of the financial analysis indicate that Scenario 2 (Alternate DAP Solution) represents substantially less value-for-money than Scenario 1 (Maintain and Improve Accela) on the basis of their net present values, in the order of approximately \$4.3 million dollars. Given that this is specifically a Value-for-Money Audit, **the results of the analysis do not justify a switch decision to an alternative platform and that Scenario 1 (Maintain and Improve Accela) is better value for money.**

Audit Recommendations and Management Response

Recommendation R1: The Audit Team recommends that Brampton make no further investment in any new reporting tools, given that it has Microsoft Power BI to meet its business intelligence and analytics needs.

Management Response to Recommendation R1: Acknowledged, and no comment.

Recommendation R2: The Audit Team recommends that Brampton prioritize the build-out of the required reporting, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R2: Acknowledged, and no comment.

Recommendation R3: The Audit Team recommends that Brampton train its staff to update file processing status on a same-day basis for Bill 109 risk-exposed file categories (Site Plans and OPA/ZBA files) that are an urgent and immediate priority.

Management Response to Recommendation R3: Management acknowledges the recommendation and welcomes any further recommendations on how to improve the City’s tracking tools relating to Bill 109 timelines. This could include access to the tool for all staff; more fulsome information included in reporting dashboards (e.g., staff assignments); and use of automated notifications to staff at specific milestone dates.

Recommendation R4: The Audit Team recommends that Brampton’s DAP workflow be updated to achieve integration of post-Draft Plan “Engineering DAP” phases.

Management Response to Recommendation R4: Acknowledged, and no comment.

Recommendation R5: The Audit Team recommends that Brampton investigate, and deploy if feasible, a portal that facilitates input to Brampton’s workflow platform by the post-Peel Region water/wastewater agency staff as commenters/approvers of major infrastructure.

Management Response to Recommendation R5: Acknowledged, and no comment.

Recommendation R6: The Audit Team recommends that Brampton close the Post-Draft Plan Engineering DAP workflow gap to avoid falling behind on its workflow deployment.

Management Response to Recommendation R6: Acknowledged, and no comment.

Recommendation R7: The Audit Team recommends that Brampton achieve 100% compliance with time tracking and closure of workflow steps through further direction and training of staff.

Management Response to Recommendation R7: Acknowledged, and no comment.

Recommendation R8: The Audit Team recommends that Brampton improve its deployment of spatial data to achieve better functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R8: Management acknowledges the recommendation and requests prioritization of spatial datasets to best serve development approvals.

Recommendation R9: The Audit Team recommends that Brampton implement appropriate automated e-mail notifications to improve communication and workflow.

Management Response to Recommendation R9: Management acknowledges the recommendation, and has asked for a suitable volume of automated notifications.

Recommendation R10: The Audit Team recommends that Brampton invest in a document management solution compatible with Accela Cloud (or an alternative platform) to achieve the desired functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R10: Acknowledged, and no comment.

Recommendation R11: The Audit Team recommends that Brampton configure the GIS map to show related records geospatially (e.g., Draft Plan of Subdivision and Final approvals) and enhance the user interface for improved functionality.

Management Response to Recommendation R11: Acknowledged, and no comment.

Recommendation R12: The Audit Team recommends that Brampton explore the ability to improve the global search function (separately from a document management solution) and, regardless of its ability to improve the search, provide a tool tip alongside the search to improve the end user expectations/experience.

Management Response to Recommendation R12: Acknowledged, and no comment.

Recommendation R13: The Audit Team recommends that Brampton update the code behind the pages that display commenting in Accela so that character limits and/or text wrapping issues are resolved.

Management Response to Recommendation R13: Acknowledged, and no comment.

Recommendation R14: The Audit Team recommends that Brampton update the code behind the pages for the comment box and the conditions box, to better ensure that staff comments are entered into the correct field, and provide appropriate training on this.

Management Response to Recommendation R14: Acknowledged, and no comment.

Recommendation R15: The Audit Team recommends that Brampton sustain a working group with its Accela peer municipalities to share knowledge from time-to-time on configuration, improvements, tools, practices, and end-user needs.

Management Response to Recommendation R15: Acknowledged, and no comment.

Recommendation R16: The Audit Team recommends that Brampton provide further direction to staff on the necessity of updating status in the workflow(s).

Management Response to Recommendation R16: Acknowledged, and no comment.

Recommendation R17: The Audit Team recommends that Brampton conduct spot-checks from time-to-time to assist with identifying staff that may need additional training/coaching on their workflow environment.

Management Response to Recommendation R17: Acknowledged, and no comment.

Recommendation R18: The Audit Team recommends that Brampton implement a workflow update that better tracks development engineering’s collaborative approach with applicants that will provide better continuity for the overall workflow.

Management Response to Recommendation R18: Acknowledged, and no comment.

Recommendation R19: The Audit Team recommends that Brampton resolve the configuration that causes the “Review Distribution/Development Engineering Review” task to be labelled with a cryptic “Note” and correct this label to be understandable.

Management Response to Recommendation R19: Acknowledged, and no comment.

Recommendation R20: The Audit Team recommends that Brampton utilize a “drawbridge” workflow configuration to require staff to close/update file status before being able to progress to completion of subsequent processing milestones.

Management Response to Recommendation R20: Management acknowledges the recommendation and recognizes that improved operating procedures may be needed to ensure that staff undertake file status updates immediately after leadership approval is provided.

Recommendation R21: The Audit Team recommends that Brampton design a formal training regime for its workflow platform end-users, benchmark user skills, and then implement appropriate training to enhance end-user skill to levels commensurate with their DAP function, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R21: Acknowledged, and no comment.

Recommendation R22: The Audit Team recommends that Brampton develop and implement a regime for reoccurring knowledge-building of the Accela platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R22: Acknowledged, and no comment.

Recommendation R23: The Audit Team recommends that Brampton develop and implement a continuous improvement program for gathering known issues, prioritizing fixes, and implementing fixes on a regular basis, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R23: Management acknowledges the recommendation and notes that further staff resources will be required from IT to allow the prioritization to occur.

Recommendation R24: The Audit Team recommends, in conjunction with recommendations made elsewhere in this Audit, that Brampton increase its human resourcing support for its workflow platform by an estimated 1 FTEs of system administrators/super-users to achieve all the known fixes and the desired level of support for the platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R24: Acknowledged, and no comment.

Recommendation R25: The Audit Team recommends that Brampton maintain and improve Accela (On-Premises transitioning to Cloud) given its better value for money as assessed through this Audit.

Management Response to Recommendation R25: Management has acknowledged the recommendation and remains interested in exploring potential benefits associated with alternative software to confirm that they do not have added benefits over Accela (e.g., intuitive user experience). Management is also interested in further understanding that cost efficiencies are the only applicable consideration due to all other matters being equal.

Recommendation R26: The Audit Team recommends that Brampton prioritize investments in improving and augmenting the Accela workflow platform (including associated staffing resources) to gain optimal DAP efficiencies.

Management Response to Recommendation R26: Management has acknowledged the recommendation and remains interested in exploring potential benefits associated with alternative software to confirm that they do not have added benefits over Accela (e.g., intuitive user experience). Management is also interested in further understanding that cost efficiencies are the only applicable consideration due to all other matters being equal.

Conclusion

Through the course of this Audit, the Audit Team’s investigation has determined that while Brampton may have procured Accela quickly because of the imminent end to Plan Track, it has a DAP workflow software platform that meets the functional needs to deliver a high-performance development approvals regime. The Audit Team has found few actual drawbacks with the Accela workflow tool itself, and has found key challenges with training/skills, end-user behaviour, configuration, and easily resolved “fixes” that need to be made – underscored by the fact that many of the complaints from Brampton staff about Accela do not exist or have been resolved at the peer municipalities with which we consulted.

As a value-for-money Audit, the Audit Team’s net present value (NPV) analysis has demonstrated that switching to another software platform does not provide greater value to Brampton; therefore, the Audit Team’s recommendation is that Brampton maintain and improve Accela. The other recommendations in the Audit Report can help Brampton achieve greater optimization of Accela, which will have a positive return on staff productivity/efficiency, and in turn, help Brampton fast-track development on the way to meeting its housing pledge.

Acknowledgement

The Audit Team would like to acknowledge and thank Brampton’s staff and Management for their cooperation and contributions during this Audit that helped facilitate our investigation.

1.0 Introduction & Audit Context

This report documents the City’s 2023 Value-For-Money Audit of the Accela Workflow Tool which was conducted by the Audit Team of Dillon Consulting Limited and Performance Concepts Consulting Limited (Audit Team).

1.1 Audit Context

Brampton currently faces significant challenges in the delivery of the development approval process (DAP). The regulatory framework for approving development in Ontario is undergoing significant restructuring:

- Bill 109 has mandated a sliding scale of processing fee refunds to applicants for Official Plan Amendments, Zoning By-law Amendments and Site Plan approvals that do not meet timeframe targets;
- Bill 23 and the Province’s Housing Supply Action Plan will require Brampton to accelerate housing supply by approving 113,000 units by 2031 – twenty years faster than previously forecast; and,
- Bill 112 will dissolve the Region of Peel and the Transition Board may replace it with an as-yet unspecified service delivery agency for the maintenance and provision of water and wastewater infrastructure essential to service forecast growth.

The importance of a high-functioning technology platform (workflow tool) to deliver LEAN development application processing in Brampton cannot be overstated. It is not “business as usual” for the City.

The Accela Value-for-Money Audit will play an important role in managing the City’s service delivery performance risk in the face of unprecedented regulatory changes and forecasted approvals volumes.

Development Approvals Process – Bill 109 Timeframes & Fee Refund Regulatory Challenges

On April 14, 2022, the Province passed the *More Homes for Everyone Act, 2022* (Bill 109), which was described as the initial step in implementing the recommendations of the Ontario Housing Affordability Task Force (OHATF). Bill 109 resulted in numerous amendments to the *Planning Act* aimed at reducing red tape, accelerating development timeframes, and streamlining approvals with the ultimate objective of increasing housing supply in Ontario. Of particular significance to this Value-For-Money Audit of the Accela Workflow Tool (Audit), Bill 109 requires municipalities to provide staged refunds of Official Plan Amendment (OPA), Zoning By-law Amendment (ZBA), and Site Plan application fees when they exceed the timeframe targets set out in the legislation.

Table 1-1: Bill 109 Refund Triggers

Application Type	No Refund	50% Refund	75% Refund	100% Refund
Combined OPA & ZBA Application	Decision within 120 calendar days	Decision within 121 and 179 calendar days	Decision within 180 and 239 calendar days	Decision by 240 calendar days or later
ZBA Application	Decision within 90 calendar days	Decision within 91 and 149 calendar days	Decision within 150 and 209 calendar days	Decision by 210 calendar days or later
Site Plan Application	Approval within 60 calendar days	Approval within 61 and 89 calendar days	Approval within 90 and 119 calendar days	Approval by 120 calendar days or later

Many municipalities across Ontario are nowhere near meeting the Bill 109 statutory deadlines for Site Plan, OPA, and ZBA application decisions/approvals. These municipalities struggling with meeting these timeframes find themselves at risk of being compelled to provide mandatory fee refunds which will erode development approvals process (DAP) revenue streams and subsequently trigger significant municipal property tax impacts. The Bill 109 deadlines are expressed in calendar days rather than business days (i.e., weekend days and holidays are counted in the timeframe). Furthermore, in a development review regime characterized by multiple rounds of application resubmissions and municipal review, the timeframes place a significant challenge on municipalities to fulfill their onus to conduct a fulsome review of a development prior to issuing a decision/approval.

In Brampton, the Accela workflow tool must now be deployed to rigorously track *actual* OPA/ZBA/Site Plan processing timeframes against Bill 109 *target* timeframes. In the Bill 109 context, Brampton Management is looking to Accela to forecast Brampton's refund risk exposure at a granular day-by-day level for each affected application. Management is faced with the task of then corralling its available

staffing resources to generate decisions that “stop the Bill 109 clock” and limit fee refund impacts. For Management to have this insight and respond effectively, Accela functionality/configuration is the key to the City’s Bill 109 adaptation efforts.

Brampton’s Provincial Housing Pledge

The Province announced Bill 23, the *More Homes Built Faster Act*, in autumn 2022. The Province’s stated goal is to build 1.5 million homes in Ontario over the next 10 years. The Province intends to unlock more housing, streamline development approvals, remove barriers, accelerate planning, and further protect home buyers and owners. To achieve the goal of building 1.5 million homes, the Province’s target for the City of Brampton is 113,000 new homes constructed by 2031. This pledge demonstrates the City’s commitment to unlock more housing, streamline development approvals, remove barriers, and accelerate planning in support of the Province’s housing target.



Image source: City of Brampton

With a 10-year target of 113,000 new homes for the City of Brampton (11,300 homes per year), Ontario’s Housing Supply Action Plan presents an aggressive and unprecedented rate of required housing growth. Moreover, this target requires an increase of approximately 58,000 homes over and

above the City's housing forecast¹ described in the City's Current Official Plan, Brampton Plan (2006, as amended).

Accela will play a key role in providing DAP performance data about both the City's greenfield subdivision-driven housing approvals channel as well as the Site Plan driven infill approvals channel. Accela generated performance metrics will need to encompass private sector demand/requests for approvals as well as the City's processing/approvals response to that demand. The metrics extracted/constructed from Accela's tracking of development will need to reflect the private sector-City collaboration that is at the core of DAP in Brampton.

Critical Importance of Measuring Development Application Processing Timeframes

While the Bill 109 timeframes do not differentiate between the days that an application is with the municipality versus the days that an application is pending resubmission by the applicant, Brampton has expressed substantial interest in monitoring these periods as distinct from one another. This means that the activities tracked by Accela (or a replacement) will need to deliver the data for the City to reliably measure "chess clock" processing timeframes (this chess clock approach to timeframe tracking is premised on the transfer of file custody back-and-forth between the City and an applicant during the process of technical review before an approval is granted).

Chess clock timeframe tracking will need to be available for planning and engineering components of DAP in Brampton. Accela functionality and configuration must be able to facilitate chess clock reporting and facilitate forecasting of approvals so Brampton can steer DAP forward. Business analytics using data generated by Accela existed before but have now become critically important to the development future of the municipality.

1.2 Brampton's Current DAP Model and Accela's Role

Brampton's Development Approvals Process (DAP) is a core service that shapes/regulates the *built form* of the City and impacts the relative speed at which that *built form* will be achieved. DAP consists of three mostly sequential components, as shown in **Figure 1** below.

¹ Municipal Housing Pledge, City of Brampton, March 2023, retrieved from: <https://www.brampton.ca/EN/Business/planning-development/housing-brampton/Documents/Brampton%202023%20Municipal%20Housing%20Pledge.pdf>

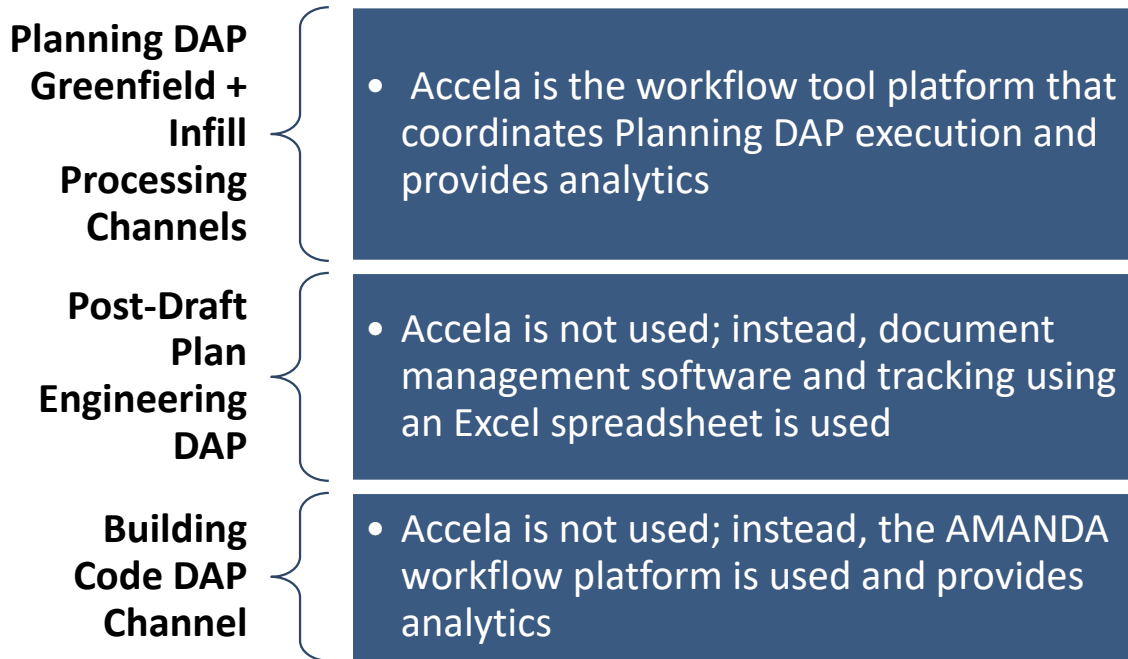


Figure 1: Brampton DAP Components + Workflow Silos

1.3 Two-Tier DAP, Bill 112, and Accela's Role

The Region of Peel has traditionally functioned as a DAP execution partner for Brampton. The Region has exercised a range of Planning DAP regulatory functions. Perhaps more importantly the Region has been responsible for the provision and maintenance of Lake Ontario based water and wastewater infrastructure essential to servicing growth in Brampton. Bill 112 will disrupt this decades-long two-tier DAP delivery model.

While Bill 23 effectively removed Peel from Planning DAP land use decision-making and approvals, the Region has continued to be a critical partner for Brampton via its role as a provider of water and wastewater infrastructure. Bill 112 now removes the Region from this critical role of providing water/wastewater servicing solutions to foster accelerated development/housing construction in Mississauga, Brampton, and Caledon. It will fall to the Transition Board to mandate the specifics of the post-Peel infrastructure delivery model.

In a 2022 Development Planning and Engineering Service Review for Peel, it was noted that the Region already actively participated within Mississauga's DAP workflow tool. A similar arrangement for embedding Regional participation with Brampton's Accela workflow platform was recommended in the aforementioned service review. Access to Accela (or substitute) by the post-Peel infrastructure agency remains necessary as an important streamlining mechanism for Brampton's DAP.

2.0 Purpose/Scope of the Value for Money Audit and Accela Origins

2.1 Purpose of the VFM Audit

Periodic concerns have been expressed by Brampton Council members, City Senior Management, DAP frontline staff, and external stakeholders regarding the effectiveness of the Accela Workflow tool.

In February, 2023, Brampton City Council passed motion PDC014-2023, which reads:

Whereas leveraging technology – in particular Accela was a key theme for opportunities to improve identified in all three studies – end-to-end review, urban design review and Committee of Adjustment; and

Whereas with the significant growth planned for Brampton, combined with our need to ensure we are using the best technology that meets customer service and financially prudent outcomes for the City;

Therefore, be it resolved that staff be directed to undertake a value-for-money review of Accela and report back to Council on the outcome on the review.

The Audit Scope is the functionality of the software platform known as the Accela workflow tool.

2.2 Origins of the Accela Platform in Brampton

Prior to adopting Accela, Brampton used a DAP workflow solution called Plan Track. When the Plan Track vendor announced its intention to discontinue supporting the software, Brampton faced a compressed timeframe to identify and implement a new DAP workflow solution. The Audit Team

understands that Brampton needed to execute this transition from Plan Track to a replacement software platform in a number of months.

Members of the City cross-disciplinary team tasked with selecting a DAP software replacement to Plan Track are no longer employed by the municipality and were therefore not available to the Audit Team for this Audit.

However, the Audit Team does understand that the initial implementation/configuration of Accela was staged. Accela was rapidly deployed as a back-office solution without an up-front application submission online portal. The current BramPlan Online submission portal was added retroactively to the initial roll-out. While the Audit Team’s experience with workflow software at municipalities is that they are typically deployed end-to-end, we have learned that the entirety of the post-Draft Plan of Subdivision workflow is not handled through Accela (i.e., only the culmination and the completion milestones of this workflow can be understood, but the actual tasks happen outside Accela).

Given the absence of staff previously involved in the selection of Accela, the Audit Team has no ability to gauge the rationale for equipping the Planning function with Accela while the Building function was already equipped with the AMANDA workflow solution. Presumably, in the Audit Team’s estimation, there must have been some discussion/consideration about using AMANDA end-to-end. Regardless of the history of software selection, the simple fact is that today Brampton uses Accela and AMANDA side-by-side, as shown in **Figure 2** below.

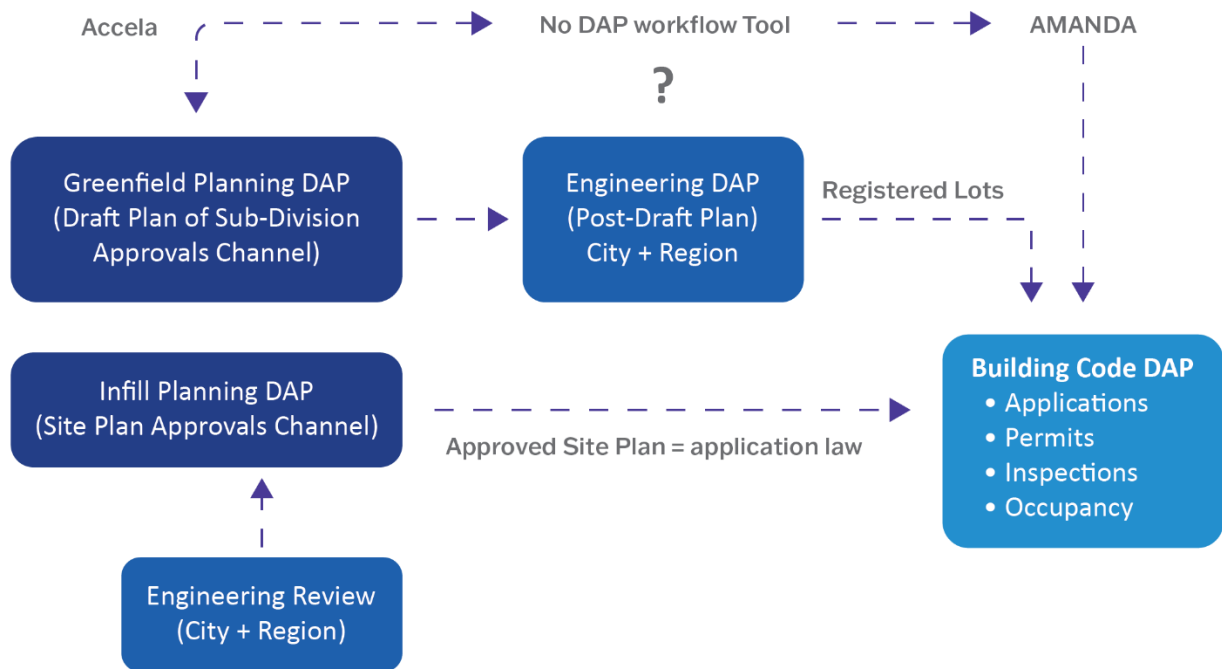


Figure 2: Accela and AMANDA in use side-by-side in Brampton

2.3 Overview of Accela Components/Functionality

The illustration below sets out the major functional components of Brampton's Accela on-premises platform as described by the Vendor.

Key Features of Accela Civic Platform



Workflow Engine

Configuration of automated processes involving multiple departments and numerous process components for assigning tasks to users, managing SLAs, routing, and approvals through all appropriate steps.



Data Management

Robust SaaS environment providing complete data management to deliver the right information, to the right user, and at the right time.



GIS Visualization

Geographic data visualization for permits, inspection and license processing with integrated map services and layers, and enhanced search functionality to view/manage processes across multiple parcels for both internal and field personnel.



Mobile Interfaces

Mobile interfaces for all solutions while enabling inspectors, code enforcement officers, work crews, and other mobile users to access data and forms, optimize scheduling and routing with GIS capturing field data, and submit everything in real-time, on their preferred device.



Resident Access

Extensive, branded, highly secure, multilingual online resident services portal, including the ability to submit applications and documents, track status, and schedule inspections.



Electronic Document Review (EDR)

Comprehensive project review and management for plans, architectural drawings, licenses, and other digital documents and critical information that ensures adherence to agency policies and codes.



Communication Management

Integrated citizen portals, automated communications, internal and external alerts, and announcements for citizens and employees through integrations with Microsoft Outlook.



Reports and Analysis

Robust reporting environment with both standardized and ad-hoc reporting giving complete visibility into process data to inform enhancements while increasing productivity and customer satisfaction.



System Extensibility

Integrate with other applications and Accela solutions in the cloud and on-premises through robust API management system and pre-built connections to ensure you can continue to leverage existing IT investments.

Retrieved from accela.com/civic-platform/.

3.0 VFM Audit Methodology

A value-for-money (VFM) audit is a systematic, purposeful, organized and objective examination of government activities intended to provide decision-makers with an assessment of the performance of those activities. VFM audits include information, observations and recommendations for decision-makers. The federal government has established a standardized method for conducting VFM audits, the details of which are set out in the *Value-for-Money Audit Manual* published by the Office of the Auditor General of Canada.²

The method and parameters employed in this VFM audit are consistent with the aforementioned standards established by the federal Office of the Auditor General of Canada. The following sections offer greater detail regarding the methodology employed in this VFM audit.

² See: Office of the Auditor General of Canada. (2000). *Value-for-Money Audit Manual*. Government of Canada. <https://publications.gc.ca/collections/Collection/FA3-30-2000E.pdf>

3.1 Audit Planning Components



3.2 Audit Approach (Execution)

The Audit Approach documents specific investigation and analysis activities to be undertaken (i.e., what evidence will be gathered) to provide objective responses to the various Audit Criteria. In pursuit of an appropriate Value-for-Money Audit of Accela's functionality, the multifaceted approach discussed below was adopted.

The Audit Team employed a mix of semi-structured interviews, diagnostic Accela tests, and cost-benefit calculations to secure both qualitative and quantitative information sets. Through these methods, a clear understanding of Accela's functionality (e.g., capabilities, existing configuration, configuration

improvement opportunities, and staff's Accela population behaviours/practices as noted in the Audit Criteria) was documented and evaluated.

As noted earlier, this approach which is consistent with the Federal Auditor General's Value-for-Money Audit Manual (January 2000), has proven to lead to objective and well-founded conclusions.

3.2.1 Semi-Structured Interviews

The execution of this Value-for-Money Audit included a series of semi-structured interviews involving the core City business units engaged in the development approvals process who are users of Accela. These interviews served as a vital means to discern the functional capabilities and limitations of the Accela system, gauge the staff's inclination to utilize it, and identify other influential factors that shape the system's tangible and non-tangible values. By engaging with DAP practitioners, the audit aimed to gain insights into their firsthand experiences, challenges, and suggestions, enabling an evaluation of Accela's effectiveness related to the Audit Criteria.

The duration of these interviews varied depending on the knowledge and utilization of Accela within each business unit. Typically, interviews ranged in duration from approximately 30 minutes for those with limited involvement to multiple hours for in-depth discussions with expert users. City staff selected for in-depth interviews included the City's DAP improvement team, sophisticated Accela super-users, and subject-matter experts (Accela) within IT. Additionally, representatives from Development Planning, Development Engineering, Building, and other internal DAP partners/stakeholders such as Parks, Transportation, and Urban Design were interviewed.

Beyond the confines of the City of Brampton, the Audit Team investigated vendors offering DAP workflow tools, or those capable of configuring a proven commercial workflow tool to meet customized DAP requirements. Additional interviews were conducted with Brampton comparators in Kingston and Barrie, which also utilize on-premises Accela. This peers-driven comparative analysis offers an evidence-based assessment of Brampton's existing Accela configuration and staff usage practices. By benchmarking Brampton's Accela experience/competencies with those of Barrie and Kingston, the "real" opportunities/challenges can be identified, leading to an appropriate evaluation of Accela's functionality.

3.2.2 Diagnostic Testing of Accela

This evidence was gathered by conducting diagnostic testing of the Accela system, encompassing three critical components: diagnostic tests of Accela's functionality, diagnostic tests of Accela's configuration, and diagnostic tests around staff's population and managing of files. These tests provide the insight needed to help audit Accela's functionality for Brampton and are described below.

Diagnostic Testing of Accela’s Functionality

The first diagnostic component aimed to assess Accela's capabilities and limitations based on the intended requirements outlined by the Audit Objective(s). By conducting these tests, the Audit Team can precisely measure the extent to which Accela aligns with the specific requirements of the DAP stakeholders. Identifying what Accela can and cannot do provides valuable insights into its functional adequacy and its capacity to efficiently support the development approvals process. This component ensures that Accela's functional attributes are objectively evaluated, forming a foundational basis for gauging its overall value. This testing involved the Audit Team’s direct observations of Accela functionality as demonstrated by staff.

Diagnostic Testing of Accela’s Configuration

The second diagnostic component sought to evaluate whether Accela has been optimally configured or if it can be further customized to accommodate the unique needs of DAP stakeholders. By examining the configuration, the Audit Team can uncover potential opportunities for enhancing the system's performance and tailoring it to precisely align with the City of Brampton's specific development approval requirements (or confirm actual deficiencies in Accela). This component plays a pivotal role in assessing how well Accela can adapt to the City's evolving needs and how effectively it supports DAP processes, revealing its go-forward value as a tool for streamlining development approvals. This testing involved the Audit Team’s direct observations of Accela functionality as demonstrated by staff.

Diagnostic Testing of Staff’s Populating and Managing Files in Accela

The third diagnostic component focused on assessing the behavioral aspects of staff's data input and management within the Accela system. By examining user behavior, the Audit Team can gain crucial insights into how effectively staff members utilize Accela to manage files, process data, and execute DAP tasks. Understanding staff behaviors helps identify potential areas for training and improvement, ensuring that Accela is utilized optimally and maximizing its value as an efficient DAP workflow tool. This component acknowledges the significance of user engagement and adherence to established protocols, which can greatly impact Accela's overall value and success in supporting the development approvals process. It also can provide insight on the level of training and transition challenge that must be quantified if Brampton opts to switch platforms.

It is outside the scope of the Audit to prescribe specific strategies to alter/refine user behaviors around data population or usage practices. Instead, the focus will be on isolating the performance factors associated with the DAP technology platform – not the practitioners. By taking this approach, the Audit aims to offer fairness in its evaluation of Accela *software functionality* given the reality of *human end-user practices*. This testing involved a review of a sample of files, and the Audit Team’s direct observations of what is recorded in Accela (or not).

3.2.3 Net Present Value Calculation for Replacing/Upgrading Accela

As part of the Value-for-Money Audit, a net present value calculation will be conducted to quantify upgrading or replacing the current Accela on-premises system. The net present value calculation is helpful in this evidence gathering, since it allows the Audit Team to quantify ratios of net marginal costs versus net marginal benefits over a specified lifecycle. The evidence obtained through this component of the Audit will allow the Audit Team to clearly explain the net benefits derived from potential Accela alternatives against the associated net transition costs.

As previously noted, consideration will be given to end-user “behavior” as a crucial element in evaluating/quantifying cost-benefit trade-offs across Accela and other workflow tool options. The approach to this Audit acknowledges the impact of user behavior on the effective utilization of existing or replacement DAP workflow solutions.

The cost-benefit calculation(s) are scoped to include:

- the current Accela On-Premises tool, with a forthcoming Accela Cloud migration³; and,
- one alternative DAP workflow tool that can be tailored to meet the specific requirements of Brampton’s DAP execution.

³ It should be noted that the Audit Team was notified mid-stream during this Audit that the Vendor was discontinuing Accela on-premises and moving all customers to Accela Cloud. As a result, the cost-benefit calculations by default include an option where Brampton retains Accela on-premises and then transitions to Accela Cloud; there is no scenario where Brampton can retain Accela on-premises over the long-term analysis lifecycle of the cost-benefit calculations.

4.0 Audit Observations and Findings: Objectives 1 to 6

The following sections of the Audit Report describe the analytical and qualitative aspects required by the Audit Plan across the first six Audit Objectives.

4.1 Audit Objective #1, Selection Criteria

Audit Objective 1: Determine whether the selection of Accela by Brampton was supported by objective criteria reflecting the requirements/characteristics of a high performing DAP service delivery model.

Criterion ID	Criteria: Brampton's Selection Criteria for the Workflow Platform is Appropriate for Today's Needs and Foreseeable Future Needs	Rationale for Criteria
1.1	<p><i>Were these <u>functionality</u> criteria identified, which are relevant for today's needs and foreseeable future needs?</i></p> <p>1A.1 - Was tracking of the pre-application consultation process considered?</p> <p>1A.2 - Was timeline tracking of files considered? (also see 1.2, 1.3)</p> <p>1A.3 - Was "clock on" and "clock off" timeline tracking of files considered?</p> <p>1A.4 - Was the ability to triage "problem files" considered?</p> <p>1A.5 - Were online portals considered (external agencies, applicants, applicant's consultants)?</p> <p>1A.6 - Was comment tracking within the platform considered?</p>	<p>Accela's original configuration was impacted by very limited timeframes to procure the platform. Immediately deployment may have taken precedence over a more visionary approach to the platform. It is important to establish a functionality baseline from which any go-forward considerations can be measured. The focus here is on core <u>functionality</u> requirements to support a high-performance DAP model (and not matters of user interface, tech support, cost structure, etc.)</p>

Criterion ID	Criteria: Brampton’s Selection Criteria for the Workflow Platform is Appropriate for Today’s Needs and Foreseeable Future Needs	Rationale for Criteria
	<p>1A.7 - Were automatic notifications within the platform considered?</p> <p>1A.8 - Were a native dashboard and management reporting tools considered?</p> <p>1A.9 - Was the ability to easily port the database to facilitate further customization of reports considered?</p> <p>1A.10 - Was seamless interoperability with the Building Permit software (AMANDA) considered?</p>	

4.1.1 Audit Objective 1 – Observations

The Audit Team has observed that criterion 1A.1 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. PR-42 states, “Manage and Record Development Consultation: Tracking any development-related meetings and notes, such as pre-submission consultation meetings and linking these to properties via roll number or address point (GIS). Also, linking any documents, such as comments received from agencies / municipalities / members of the public, reports, correspondence, etc., related to planning applications linked to the property.”

The Audit Team has observed that criterion 1A.2 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. GR-01 states, “System generates date/time stamping of transactions.”
- Item No. PR-39 states, “Time Tracking Features: Tracking time spent on various tasks associated with a development application.”

The Audit Team has observed that criterion 1A.3 (“clock on” and “clock off” timeline tracking) **was not** identified in the RFP through which Accela was procured.

The Audit Team has observed that criterion 1A.4 (triage of problem files) **was not** identified in the RFP through which Accela was procured.

The Audit Team has observed that criterion 1A.5 **was** identified in the RFP through which Accela was procured, as follows:

- Mandatory Evaluation Requirement No. 2 states, “Online Portal that provides customer facing broader range of external services for public access; Applicants, Citizens and consultant’s ability to apply, pay fees, review comments and track progress of application. System is 100% web-based and web-accessed (back office & external).”

The Audit Team has observed that criterion 1A.6 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. GR-18 states, “Online system that provides customer facing broader range of external services for public access; and specifically, customer web and mobile device access. Applicants and consultant ability to review comments and track progress of application.”
- Item No. GR- 21 states, “Ability to tracks [*sic.*] and accommodates approvals from various departments and external agencies including date of approval, person approving, and comments.”
- Item No. PR-13 states, “The system determines and tracks plan review steps and department comments based on application types.”
- Item No. PR-14 states, “The system allows concurrent plan review by multiple departments and outside agencies (such as Region of Peel, Conservation Authorities and School Boards, etc.) and to allow them to input plan review results and comments.”

The Audit Team has observed that criterion 1A.7 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. GR-02 states, “System generates letters and notifications automatically, and email to recipients based on predefined criteria or selection by GIS interface.”
- Item No. GR-24 states, “Automatic notification reminders to users who have upcoming deadlines.”
- Item No. PR-40 states, “Activity Due Date Reminders: Reminders sent via email as well as reminders and notifications in the software of tasks and activity deadlines. Examples include notice of complete application deadline, notice of complete application circulation, comment deadline, and appeal deadline.”

The Audit Team has observed that criterion 1A.8 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. GR-28 states, “The system has a manager's dashboard view to view all of their staff's work schedules and assigned activities.”

- Item No. R-29 states, “The system has an applicant's dashboard view of the status on all of their applications throughout the review process, including but not limited to staff assigned, status of service level, additional steps in the process and comments from reviewing departments, etc.”
- Item No. RR-03 (Reporting Requirement) states, “Have the ability to support a wide range of query features to support business needs, including searching at the project, case file, location, or person level.”

The Audit Team has observed that criterion 1A.9 **was** identified in the RFP through which Accela was procured, as follows:

- Item No. RR-04 states, “The system must be able to extract data/reports to Microsoft products (e.g., Excel, Word, Access).”

The Audit Team has observed that criterion 1A.10 **was** identified in the RFP through which Accela was procured, as follows:

- Mandatory Evaluation Requirement No. 2 states, “Integration and/or compatibility with other City-wide platforms through Web services, APIs and Open data, specifically City's Building Permit process and tracking system based on CSDC's Amanda 7.x”
- Item No. TR-15 states, “The system seamlessly integrates with similar data in other systems and specifically City's Building Permit System that is based on Amanda 7.x”

4.1.2 Audit Objective 1 – Findings

The intent of Audit Objective #1 is to determine whether the selection process leading to purchase of Accela by Brampton was supported by objective criteria reflecting the requirements/characteristics of a high performing DAP service delivery model.

The Audit Team finds that during our review of the criteria in Request for Proposal No. RFP2018-052 (RFP), eight of the ten core functionality criteria (relevant for today's needs and foreseeable future needs) were explicitly identified in the RFP and two were not.

The Audit Team finds that the criteria listed in the RFP demonstrates that the City understood what workflow functions were needed from the software to replace PlanTrack. The criteria identified in the RFP reflect integration of existing development approval processes and considered the requirements for interoperability with existing technology for seamless implementation.

Where the Audit Team observed that two specific criteria were not identified in the RFP (Audit Criteria 1A.3, “clock on” and “clock off” timeline tracking; Audit Criteria 1A.4, triage of problem files), it is the Audit Team's opinion that these Audit Criteria could be *demonstrated* through the application of a workflow platform's functionality. For example, while Accela out-of-the-box would not have a pre-configured “clock on” and “clock off” timeline tracking feature, the fact that it timestamps all

transactions (see discussion elsewhere in this Audit about timestamping) within every workflow means that the data is available for such on/off tracking to be achievable. Similar, it is the Audit Team’s opinion that triage of problem files would be possible, as long as the municipality was able to define what characterizes “the problem”.

The Audit Team finds that the criteria in the RFP are indicative of a high-performance DAP environment. In addition to the Mandatory Requirements, the RFP provides a comprehensive list of detailed “Business Functionality” and “Solution Requirements”. It is the Audit Team’s opinion that the selection of the workflow tool to replace PlanTrack by applying the above-noted criteria was suitably adequate, and therefore the Audit Team has the follow-on opinion that the selection of Accela at the time was suitably adequate.

4.1.3 Objective 1 – Recommendations

The findings of Audit Objective #1 are solely based on the review of the RFP’s Mandatory Requirements and Business Functionality and Solution Requirements against the Audit Objective #1’s criteria, and intended to provide a baseline understanding of the selection criteria against which Accela was considered to provide context for our opinions in the other Audit Objectives.

The Audit Team does not have recommendations arising from Audit Objective #1.

4.2 Audit Objective #2, Goal Setting

4.2.1 Audit Objective 2A – Observations

Audit Objective 2A: Determine whether Accela natively supports management-level goal setting and reporting of outcomes.

Criterion ID	Criteria: Brampton Rigorously Tracks Performance Indicators to Support Management-Level Goal Setting	Rationale for Criteria
2A.1	<i>Does Accela have a built-in tool that allows Brampton to set a goal, identify key performance indicators, and generate automatic performance measurement/progress reporting against that goal (or goals)?</i>	The Province has set housing targets for Brampton to be achieved. Planning in Brampton also has other targets to be achieved such as residential intensification, density, etc. Historically, performance measurement against goals in planning departments has been a manual, labour-intensive process (even with new software tools, data manipulation remains a necessity to achieve reporting on goals). Recognizing the importance of Brampton achieving its goals, the role that management plays in steering development to these goals, and the benefits of a modern workflow tool, Brampton needs to understand how streamlined this goal-based reporting is in Accela.
2A.2	<i>Can Accela support predictive processing timeframe estimates for planning applications – providing the City with forecasts of decision/approval dates based on historical processing timeframes and current application volumes?</i>	As a fast-growing municipality, Brampton senior management wants to have a clearer understanding of when decisions/approvals are likely to occur (it currently takes staff about 3 business days to respond to an applicant with an informed estimate for a decision/approval milestone). Applicants require high quality information on decision approval dates to manage cash flow and future construction supply chains. Other workflow tools have demonstrated the ability to supply this important information.

Criterion ID	Criteria: Brampton Rigorously Tracks Performance Indicators to Support Management-Level Goal Setting	Rationale for Criteria
2A.3	<i>Does/can Accela provide Brampton management with management-appropriate file triaging priorities every day/week?</i>	Similar to above, but this explores the need for Accela to deliver customized information for senior leadership to fulfil their roles in DAP service delivery.

To assess Accela’s native ability to support management-level goal setting, a series of investigations into Accela’s reporting (and reporting tools being used by the City) was conducted, including a demonstration of functionality in the forthcoming Accela Cloud platform.

The Audit Team has observed that Accela natively has some reporting functionality that provides baseline reporting of data points; however, the City’s needs are much more significant, ranging from quantum of net new residential units, to sustainability scores, and building permitting outputs. Staff have reported to the Audit Team that the City currently uses up to “four different applications” to generate the type of reporting illustrated in **Figure 3**.

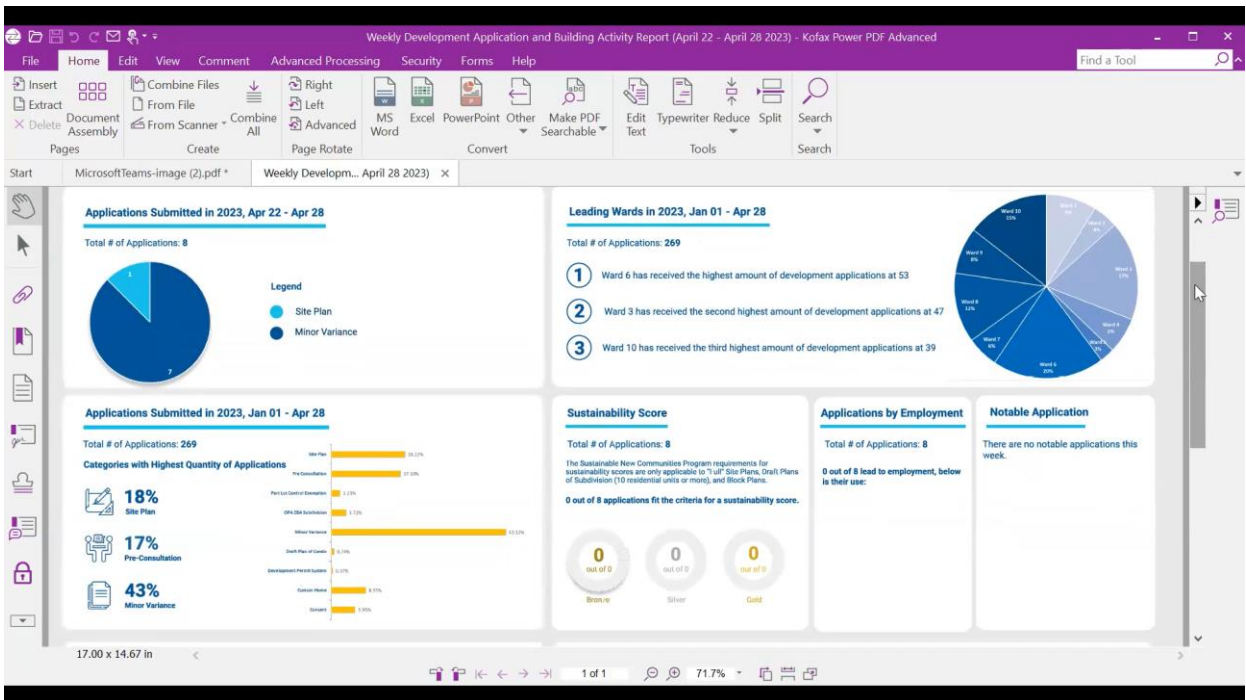


Figure 3: Static representation of the type of visual reporting the City is seeking, built using an application outside of Accela

The City is also working on a “live dashboard” and has developed the following example of reporting using a software tool that draws from data stored in Accela, shown in **Figure 4**.



Figure 4: Accela's live dashboard as demonstrated to the Audit team by staff

Through the investigation, the Audit Team observed that the challenge expressed by staff from extracting data was “not necessarily because of Accela, but how we setup and labelled our workflows and tasks.” An example was given about the Deemed Complete stage and Complete Application status for a development, and if that is not handled properly by front-line staff then the data becomes skewed.

Noteworthy is that Accela will be moving from an on-premises approach to a software-as-a-service approach, which is referred to as “Accela Cloud.” In Accela Cloud, there is a new reporting tool called Accela Insights which is back-ended by Microsoft PowerBI. No outside connection of third-party tools is required to generate the native reporting in Accela Cloud. The Vendor has indicated that all data related to “records, inspections, and workflow” is available for distillation using the reporting tool, and the reporting is interactive as shown in **Figure 5** and **Figure 6**.

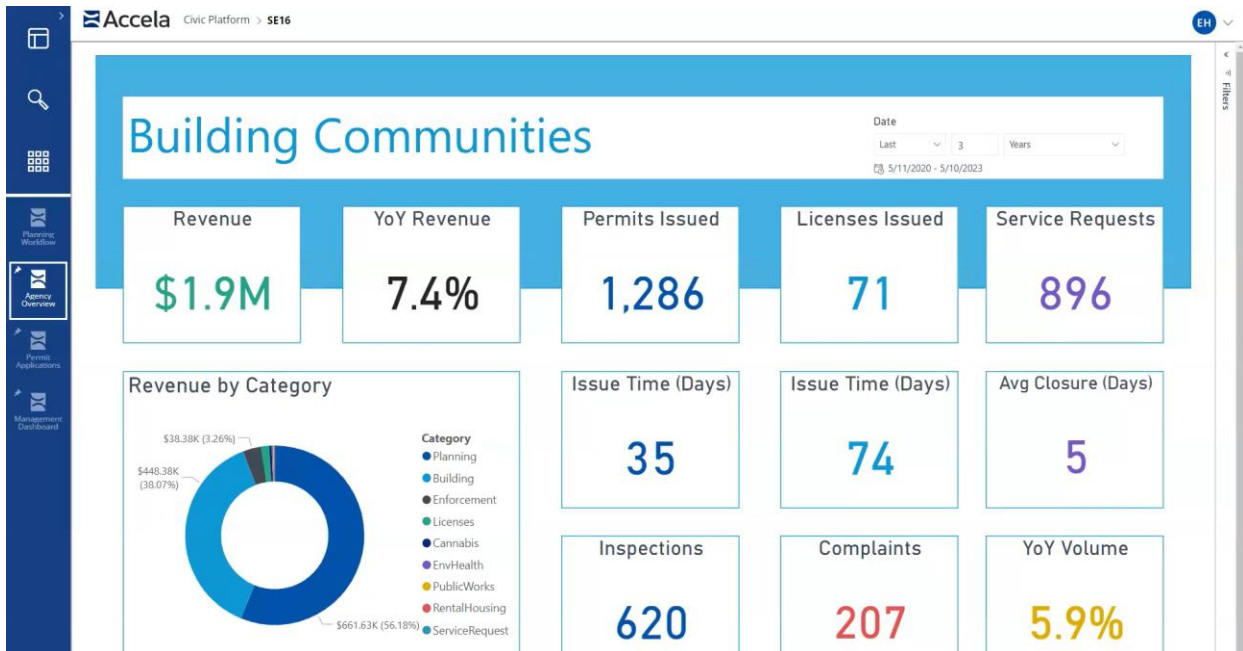


Figure 5: Example of Accela Insights reporting dashboard from Accela Cloud

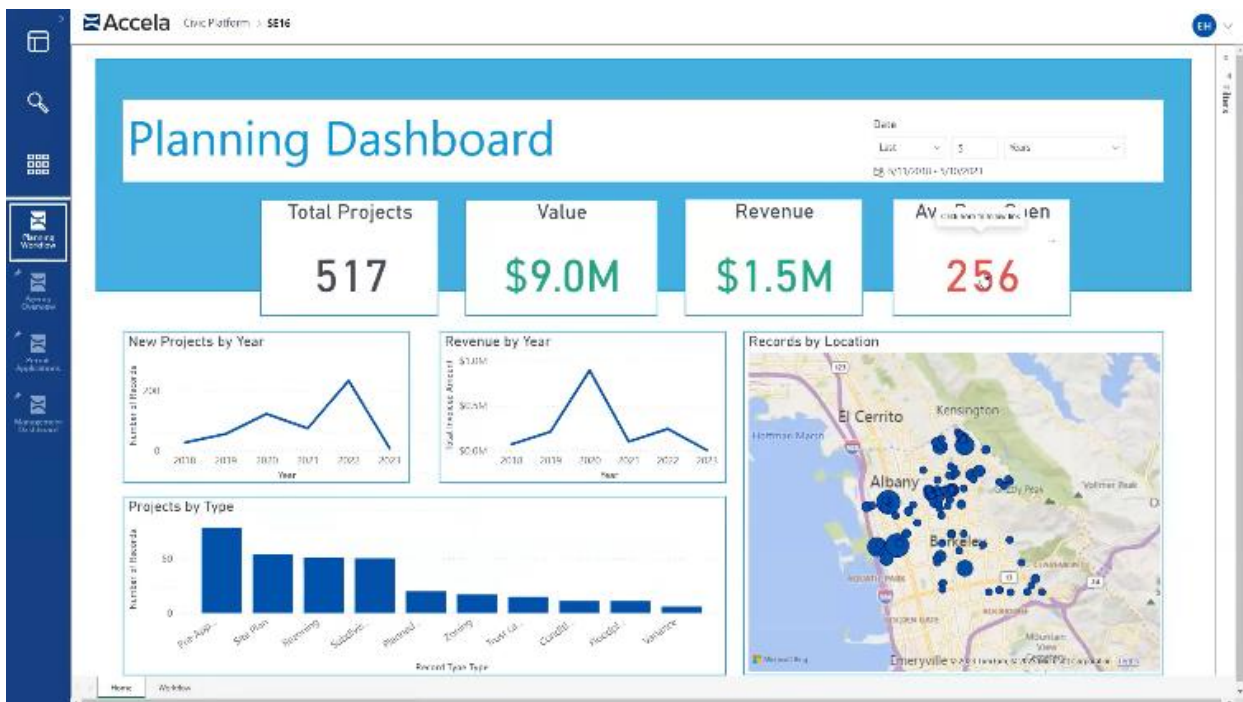


Figure 6: Example of Accela Insights reporting dashboard from Accela Cloud with more out-of-the-box features available than Accela on-premises

Within the pre-built reporting tool driven by Microsoft PowerBI is a data model, or a formalized structure of the information stored in Accela. This facilitates quick creation of reporting/dashboards drawing from the database that is at Accela’s core. This data model is shown on the right side of **Figure 7**.

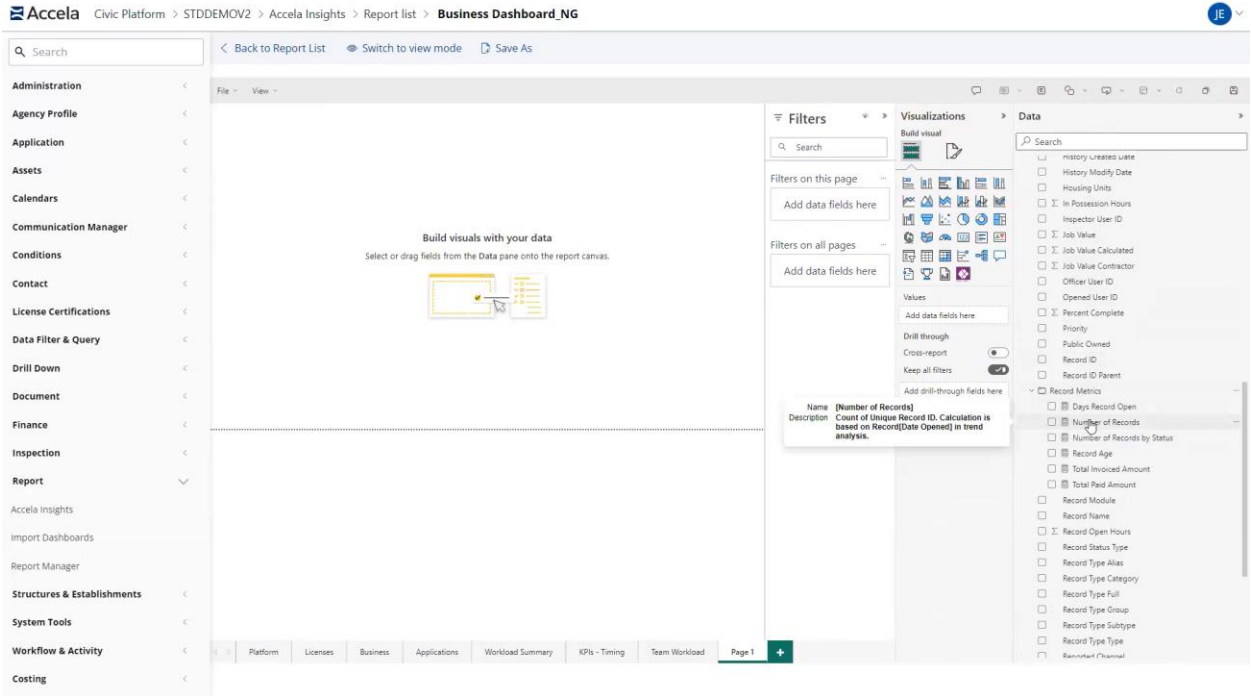


Figure 7: Data model used within Power BI for Accela Insights

Notable in the Accela Cloud reporting tool demonstrated by the Vendor was a pre-built dashboard as shown in **Figure 8**, and the lower-left two boxes showing the number of files that are “on time” and “late.” The Vendor also indicated that Accela Insights has the native ability to track what they refer to as “in hand” time, or in other words, to differentiate the time that a development application is with staff versus the amount of time it is with the applicant pending resubmission.

There are still limitations to the sophistication of the data analytics of the Accela Cloud reporting tools as a pre-built model. In the various instances where Brampton needs to monitor its own set of unique KPIs, then these would need to be created and reported through Power BI – and it is important to note that this is what the City is already doing with the Accela on-premises platform.

One interesting observation is whether or not there is predicative capacity within Accela. In the figures shown, the Audit Team observes data that includes minimum days, average days open, issue time, and average closure time. It appears that the data resides in Accela at sufficient detail that, when the right data points are analyzed and bundled together, predicative capacity may be possible.

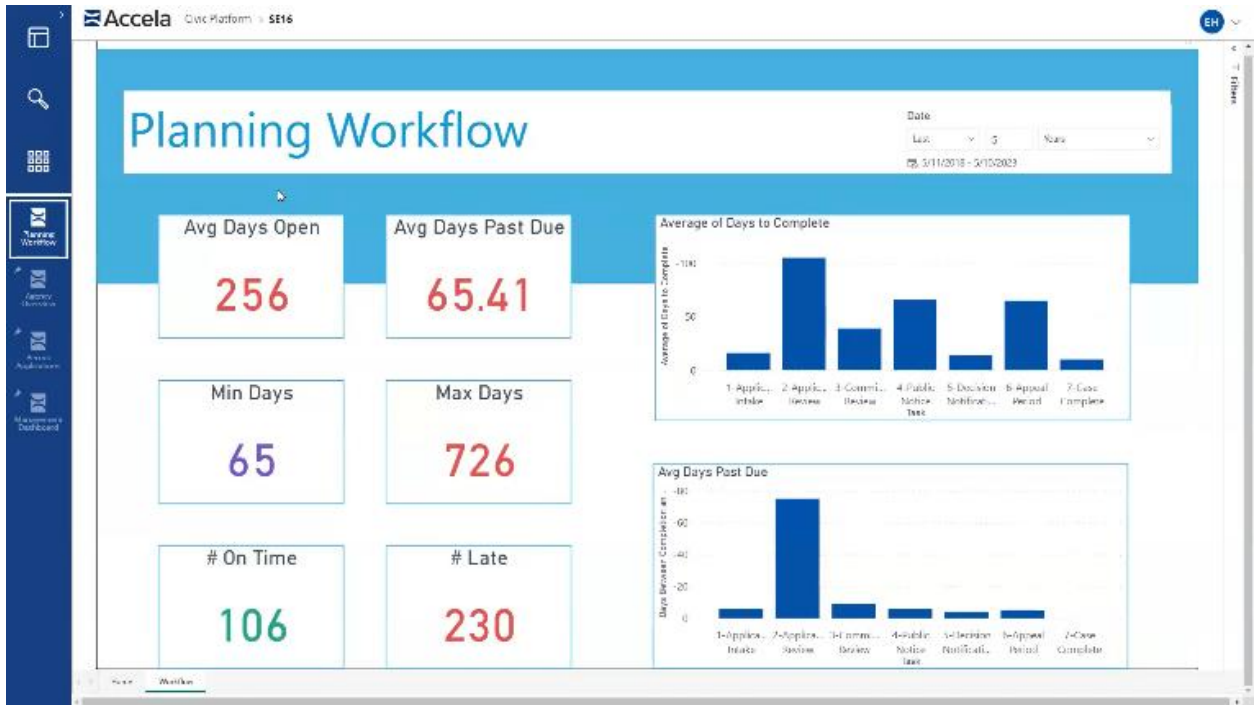


Figure 8: Reporting outputs of Accela Insights

4.2.2 Audit Objective 2B – Observations

Audit Objective 2B: Determine whether Accela workflows can be redesigned within the “effective date” timeframes customary with the recent rounds of Provincial legislative changes (e.g., Bill 109).

Criterion ID	Criteria: Brampton Rigorously Tracks Compliance Against Provincial Regulatory Timeframes	Rationale for Criteria
2B.1	<p><i>Has Brampton been able to reconfigure Accela DAP workflows to adapt to Bill 108 and Bill 109 before the effective date these changes come into place?</i></p> <p><i>Important note: This criterion focuses on workflow changes driven directly by the Province (e.g., no public meetings for Plan of Subdivisions) rather than adaptations made by Brampton to changes in legislation (e.g., Brampton’s more robust pre-consultation for site plan approvals).</i></p>	<p>The Province has made sweeping changes to legislation and the outcomes of these changes vary (new statutory timelines, refund triggers, rights of appeal); however, the workflow software itself must be nimble to these changes. Brampton must be able to modify workflows within Accela to stay abreast of legislative changes by the Province to the <i>Planning Act</i>, etc.</p> <p>Accela’s original configuration was impacted by very limited timeframes to roll out the platform. Subsequent configuration/functionality improvements may have been challenging given the realities of DAP workload and a shifting regulatory regime. It is important to evaluate the City’s track record in upgrading functionality/configuration beyond the original compressed timelines.</p>
2B.2	<p><i>Does/can Accela provide Brampton DAP front-line staff members with triaged file processing priorities every day/week (based on file aging against specified timeframe targets)?</i></p>	<p>Triaging files based on “a file aging” triage scale has been viewed as valuable; however, today it is essential. Without time frame processing targets, Brampton faces significant Bill 109 refund exposure and “No Municipal Decision” appeals risk to the Ontario Land Tribunal (OLT).</p>

Bill 109 Adaptation in Brampton

The Audit Team has observed Brampton’s active work on the design and implementation of Bill 109 adaptation measures across Q1 to Q3 of 2023.

The City’s Bill 109 adaptation efforts have focused on the Planning fee refund risks associated with Site Plan, OPA and ZBA application categories. Brampton has considered a mix of DAP application processing changes and DAP fee re-design options to mitigate refund risk and resulting negative property tax impacts. Bill 109 driven process re-engineering has encompassed the following components of DAP execution for Site Plans and OPAs/ZBAs:

- An extended pre-consultation process that moves beyond the traditional objective of documenting a checklist of “complete application” submission items. The extended pre-consultation (Pre-Con 2) involves a substantive review of submission items by City staff before an application is officially submitted/received. Early substantive feedback from City staff via an optional Pre-Con 2 review cycle improves the probability of an official application submission submitted across the BramPlan portal being “Deemed Complete” down the line and then progressing seamlessly to a single technical review cycle and an approval.
- A Bill 109 Waiver where applicants can notify the City that they will waive their fee refund opportunity in an expression of good faith to work collaboratively with the City on application processing and finding a way to “Yes” when it comes to a City approval/refusal decision.
- A 2-step Deemed Complete review process that combines a piece-count check of an application submission with a nimble content adequacy review, with both of these steps executed within the Planning Act 30-day deadline to deliver a Deemed Complete/Incomplete notification to applicants.
- A “one and done” approach to technical review cycles once an application has been deemed complete and the Bill 109 refund clock has been turned on. Applicants that decided to forgo the optional Pre-Con 2 and refuse to sign a waiver could find themselves facing a “Refusal” decision if quality problems with their submission require more than one technical review cycle by City staff prior to issuing an approval. A “One and NOT Done” refusal would require an entirely new submission.
- An application driven process for applicants seeking fee refunds, with timely re-submissions by applicants used as a refund eligibility criterion by the City.

Figure 9 summarizes the range of Bill 109 process adaptations considered by Brampton.

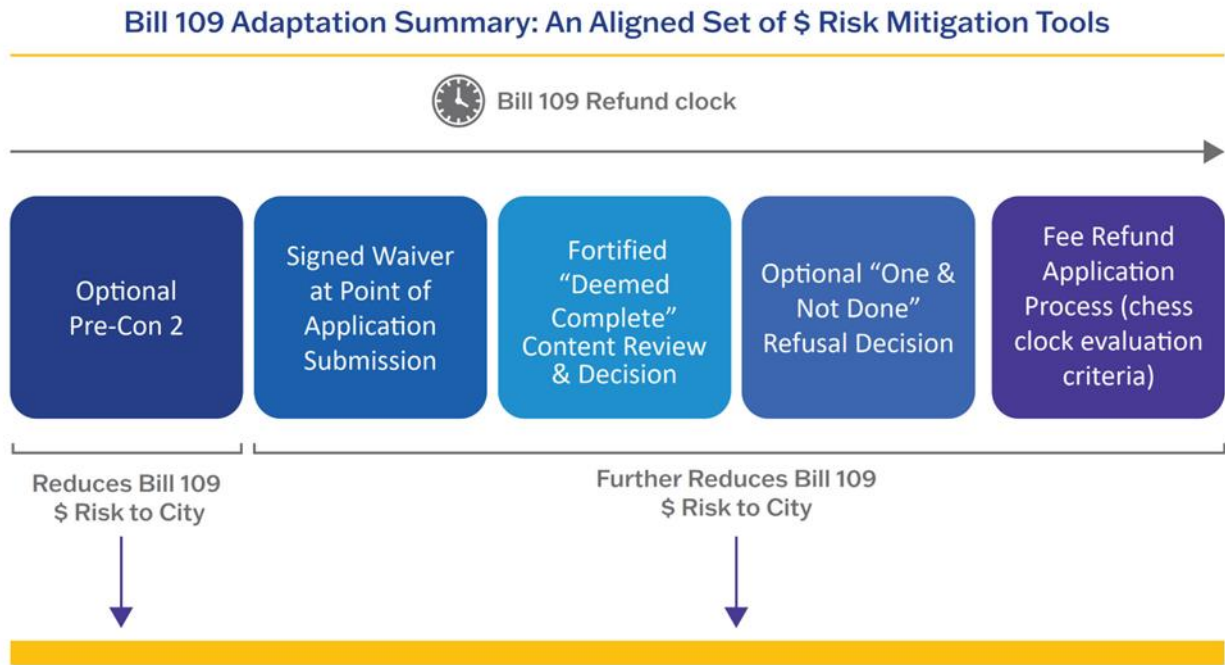


Figure 9: Bill 109 adaptation summary

Accela and Bill 109 Adaptation

The Audit Team has observed that the DAP process re-engineering changes described in the figure above have been successfully captured in Accela workflow configuration changes. Accela workflows have been adapted to reflect Bill 109 process re-engineering and staff have reported to the Audit Team that implementing the new workflows in Accela was straightforward and completed in a timely manner.

The Audit Team has observed that Accela timestamp reporting is being updated as well to support Bill 109 adaptation. As Site Plan and ZBA/OPA files move forward a set of relevant processing milestones are timestamped, and the calendar days of processing are compiled. In particular, the "Deemed Complete" decision that triggers the start of the Bill 109 fees refund clock is being used to generate data to populate an internal Bill 109 refund eligibility tracking dashboard.

The Audit Team has observed the Bill 109 refund eligibility dashboard built within Accela, as shown in **Figure 10, Figure 11, and Figure 12.**

Applications Tracking Key Milestones

109 - Site Plan 109 - Zoning By Law Amendment 109 - OPA/ZBA All - Site Plan All - OZS All - Draft Plan Of Condo All - Pre Consultation All - Clc ...

Site Plan - Application Tracking Key Milestones

Application #	Ward	File Status	Deemed Complete	Planning Act Deadline (60 Days)	Days To/Days From	Application Fee	Fee Refund	Days with City
SPA-2023-0103	WARD 4	In Review	2023/09/21	2023/11/20	33 Days	\$8,807.00	n/a	0
SPA-2023-0098	WARD 6	In Review	2023/08/31	2023/10/30	12 Days	\$1,393.00	n/a	0
SPA-2023-0097	WARD 9	In Review	2023/08/09	2023/10/08	+10 Days	\$8,807.00	\$0.00	0
SPA-2023-0077	WARD 9	In Review	2023/07/31	2023/09/29	+19 Days	\$3,188.13	\$0.00	0
SPA-2023-0084	WARD 1	In Review	2023/07/20	2023/09/18	+30 Days	\$35,293.67	\$0.00	0
SPA-2023-0078	WARD 8	Approved with Conditions	2023/07/19	2023/09/17	+31 Days	\$8,807.00	\$0.00	0
SPA-2023-0067	WARD 9	Approved with Conditions	2023/07/06	2023/09/04	+44 Days	\$19,757.00	\$0.00	0

1 - 7 of 7 records Page: 1 / 1

Figure 10: Bill 109 timelines - site plans

109 - Site Plan 109 - Zoning By Law Amendment 109 - OPA/ZBA All - Site Plan All - OZS All - Draft Plan Of Condo All - Pre Consultation All - Clc ...

Zoning By Law Amendment - Application Tracking Key Milestones

Application #	Ward	File Status	Deemed Complete	Planning Act Deadline (90 Days)	Days To/Days From	Application Fee	Fee Refund	Days with City
OZS-2023-0032	WARD 10	In Review-Pre Public Meeting	2023/10/13	2024/01/11	86 Days	\$3,509.00	n/a	0
OZS-2023-0031	8	Deemed Complete	2023/10/05	2024/01/03	77 Days	\$1,454.00	n/a	0
OZS-2023-0025	WARD 3	Deemed Complete	2023/09/20	2023/12/19	62 Days	\$52,593.39	n/a	0
OZS-2023-0033	WARD 6	In Review-Pre Public Meeting	2023/09/20	2024/01/18	92 Days	\$89,264.00	n/a	0
OZS-2021-0005	WARD 6	Registration	2023/08/01	2023/11/29	42 Days	\$87,649.00	n/a	n/a
OZS-2023-0023	WARD 10	Application Complete	2023/07/28	2023/11/25	38 Days	\$146,449.00	n/a	0
OZS-2023-0010	WARD 6	In Review-Pre Public Meeting	2023/07/06	2023/10/04	+14 Days	\$823,471.43	\$0.00	0
OZS-2023-0011	WARD 8	In Review-Public Mtg Complete	2023/07/05	2023/10/03	+15 Days	\$42,483.15	\$0.00	0

1 - 8 of 8 records Page: 1 / 1

Figure 11: Bill 109 timelines - zoning by-law amendments

109 - Site Plan 109 - Zoning By Law Amendment 109 - OPA/ZBA All - Site Plan All - OZS All - Draft Plan Of Condo All - Pre Consultation All - Clc ...

OPA/ZBA - Application Tracking Key Milestones

Application #	Ward	File Status	Deemed Complete	Planning Act Deadline (120 Days)	Days To/Days From	Application Fee	Fee Refund	Days with City
OZS-2023-0027	WARD 5	In Review-Pre Public Meeting	2023/08/25	2023/12/23	66 Days	\$68,056.00	n/a	0
OZS-2023-0009	WARD 8	In Review-Pre Public Meeting	2023/08/21	2023/12/19	62 Days	\$180,892.90	n/a	0
OZS-2023-0024	WARD 5	In Review-Public Mtg Complete	2023/07/20	2023/11/17	30 Days	\$167,747.00	n/a	0
OZS-2023-0020	WARD 7	In Review-Pre Public Meeting	2023/07/11	2023/11/08	21 Days	\$281,318.70	n/a	0

1 - 4 of 4 records Page: 1 / 1

Figure 12: Bill 109 timelines - Official Plan amendments/zoning by-law amendments

The Accela refund eligibility dashboard tracks file progress after “Deemed Complete” across the back-and-forth technical review cycles with applicants, and onwards to delegated staff approval decisions (Site Plan) or Council decisions (OPA/ZBA). Following several configuration iterations to work out the technical details, the Audit Team has observed that Accela can accurately track refund deadline

exposure and the accumulating fee refund amounts. Of critical importance is the timely updating of any file status changes in the Accela workflow as files progress towards a decision.

A particularly important feature of the Bill 109 refund dashboard is the provision of “chess clock” timeframe reporting. Bill 109 fee refund timelines (calendar day deadlines) do not recognize the necessary/unavoidable transfers of file custody between the City and applicants. However, it is critically important for Brampton to know whether Bill 109 fee refund exposure is being triggered by City processing timeframes versus applicant re-submission delays. Establishing accountability for negative property tax impacts and driving continuous improvement in City processing performance require chess clock timeframe data. In this regard, the Audit Team has observed that Accela functionality and configuration potential are able to effectively meet this challenge. That being said, staff diligence in updating the achievement of timestamped file processing milestones is a critical success factor. If file status changes are not kept up to date on a daily basis, the accuracy of the refund tracking data set imbedded in the Bill dashboard can be seriously compromised. Staff behaviours that only intermittently update Accela file status changes for Site Plans and ZBAs provide a serious risk to the viability of the dashboard. Accela can do the job, but observations of the Audit Team have raised serious concerns regarding some poor data quality arising from the lack of staff’s rigorous updating of Accela tasks/workflows – in other words, the Accela workflow tool is only as effective as the organization’s capacity/willingness to provide robust status updates.

Triaging of File Processing Priorities

The Audit Team has observed that the files assigned to staff can be organized chronologically; however, these files are not color-coded or otherwise tagged to give sense of priorities. File priorities are sorted by due date, with those due the soonest towards the top of the list; this was confirmed in discussions with a variety of staff during structured interviews. Adding color-coding or tags may be possible but does not appear to be a necessity.

4.2.3 Audit Objective 2C – Observations

Audit Objective 2C: Determine whether Accela can handle the complexity of phased subdivision approvals characteristic of Brampton’s on-going greenfield development portfolio.

Criterion ID	Criteria: Brampton Rigorously Tracks Compliance Against Regulatory Timeframes	Rationale for Criteria
2C.1	<i>Does Accela have the native capability (or can it be configured) to support the critically important phased subdivision approvals (i.e., is there a workflow that allows the draft approval of a plan of subdivision to trigger unique workflows for each phase of that subdivision)?</i>	If Brampton is to succeed in meeting its Provincial Housing pledge of 113,000 units by 2031, efficient delivery to Post-Draft Plan Detailed Engineering Review phases will be mission critical. Accela functionality/configuration will need to be optimized, despite the recent focus on Bill 109 adaptation in Brampton and other growth municipalities. The complex Detailed Engineering Review Phases require close coordination with the Region of Peel (or a post-Peel infrastructure agency) and multiple phases can be generated by a single Draft Plan. Aligned Accela workflows is a “must have” to support timely housing approvals in coming years.
2C.2	<i>Does Accela have the native capability (or can it be configured) to support Brampton’s oversight of Development Agreements realized through the clearance of conditions?</i>	This seeks to determine if Accela can manage and track the various conditions associated with Development Agreements, providing a centralized platform for monitoring their clearance status.
2C.3	<i>Does Accela have the native capability (or can it be configured) to support the new CLI-ECA approvals process created by the Province for which Brampton is now responsible?</i>	Brampton needs to assess Accela’s capabilities to support a smooth transition and ensure compliance to new approvals process. This will determine/confirm whether Accela can handle specific workflows, documentation, and approvals associated with the CLI-ECA process to ensure efficiency of Brampton’s responsibilities.

In terms of designing new workflows, this is a native ability in Accela as observed by the Audit Team. There are no hindrances to designing the workflow for a phased final approval subdivision approval process, a workflow for clearance of conditions, or a workflow for the new CLI-ECA approval process. This work to design, test, and implement these workflows have simply not occurred yet based on the Audit Team's observations.

The Audit Team has observed a gap in the post-Draft Plan workflow in Brampton. Leading up to this milestone, all tasks are handled in Accela. But once the workflow changes to the post-Draft Plan approval stage and the detailed engineering review begins, the City has not put in place an Accela workflow to track the related tasks. During this workflow, documents are saved using a document management application (Bentley ProjectWise) and the tracking of activity is handled using an Excel spreadsheet approach. The rationale given to the Audit Team for this workflow gap and non-use of Accela is varied but boils down to basically a mantra of *if it's not broken then don't fix it*, and that Accela is the tool for the Planning Department to use.

4.2.4 Audit Objective 2 – Findings

The intent of Audit Objective #2 is to determine whether Accela natively supports management-level goal setting and reporting of outcomes, and the Audit Team's findings must recognize that Brampton will be transitioned to Accela Cloud since the on-premises version of the software is being phased-out. Audit Objective #2 also seek to determine the platform's ability for timely design of workflows and workflow complexity for phased subdivision approvals.

The Audit Team finds that Accela on-premises does not have built-in tools that allow Brampton to set a goal, identify KPIs and generate automatic progress reporting against that goal; however, when the transition to Accela Cloud is considered, Accela does have many useful built-in tools, albeit falling short of the high degree of customized reporting that Brampton requires. The Audit Team's finding must be tempered with the current reality that Brampton has already invested in Microsoft PowerBI and other reporting tools, so there does not appear to be any additional software for Brampton to acquire to fulfill its reporting needs once it has transitioned to Accela Cloud.

Based on the native tools within Accela on-premises, it is the Audit Team's finding that Accela can support predictive Bill 109 timeframe estimates but is only able to generate those reports using other software; furthermore, while the Audit Team has observed enhanced reporting in Accela Cloud and sees the opportunity for predictive capacity, the more elaborate computations needed to generate predictions might be beyond the built-in capacity of Accela Insights and would need a tool such as Microsoft Power BI to meet the reporting needs. Again, as noted above, Brampton already has Microsoft Power BI so there is no software investment required – it's simply designing, testing, and rolling-out of the predictive report.

In terms of equipping management with management-appropriate file triaging priorities every day/week, it is the Audit Team's finding that Accela on-premises requires this report to be generated

using other software; however, with Accela Cloud on the horizon, the Audit Team has observed that the native reporting through Accela Insight very adeptly show files that are on time and files that are late (refer to the screenshots above), and can also identify files that are coming due (not illustrated in screenshots above, but has been observed). Furthermore, with Accela Cloud’s live reporting link with Accela Insight, it is quite possible for management to “dig down” beyond summary data and identify specific files of concern for their priority attention.

The ability of the City to successfully reconfigure Accela workflows and timeframe reporting milestones to support Bill 109 adaptive process re-engineering is noteworthy, and provides a high level of confidence in the Audit Team that granular post-Draft Plan “engineering DAP” workflows can be incorporated into Accela Cloud moving forward. Both Kingston and Barrie have integrated post-Draft Plan “engineering DAP” phases into their Accela workflows after initially focusing only on Planning DAP applications and processes (as discussed elsewhere in this Audit Report).

However, of particular concern to the Audit Team is the ability to have workflows for the post-Draft Plan component of DAP designed in Accela but the absence of these workflows configured/in use at Brampton by the development engineering staff. Engineering DAP phases of draft-approved “tranches of lots” and associated infrastructure design sign-offs are critically important to greenfield development stakeholders in Brampton. These post-Draft Plan phases need to move forward on a timely basis since houses are being sold “on spec” before lots have been legally created and before Building Permits can be issued. Brampton’s gap in its own Accela workflow and the resulting gap in time tracking data and resulting skew in performance metrics are problematic. Ad-hoc Excel spreadsheets are not appropriate corporate reporting and tracking tools for this mission-critical DAP component. Process overlaps at the back end with Building Code DAP are critically important to track and manage using a single DAP workflow tool - or at least two properly integrated workflow tools.

4.2.5 Audit Objective 2 – Recommendations

Recommendation R1: The Audit Team recommends that Brampton make no further investment in any new reporting tools, given that it has Microsoft Power BI to meet its business intelligence and analytics needs.

Management Response to Recommendation R1: Acknowledged, and no comment.

Recommendation R2: The Audit Team recommends that Brampton prioritize the build-out of the required reporting, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R2: Acknowledged, and no comment.

Recommendation R3: The Audit Team recommends that Brampton train its staff to update file processing status on a same-day basis for Bill 109 risk-exposed file categories (Site Plans and OPA/ZBA files) that are an urgent and immediate priority.

Management Response to Recommendation R3: Management acknowledges the recommendation and welcomes any further recommendations on how to improve the City's tracking tools relating to Bill 109 timelines. This could include access to the tool for all staff; more fulsome information included in reporting dashboards (e.g., staff assignments); and use of automated notifications to staff at specific milestone dates.

Recommendation R4: The Audit Team recommends that Brampton's DAP workflow be updated to achieve integration of post-Draft Plan "Engineering DAP" phases.

Management Response to Recommendation R4: Acknowledged, and no comment.

Recommendation R5: The Audit Team recommends that Brampton investigate, and deploy if feasible, a portal that facilitates input to Brampton's workflow platform by the post-Peel Region water/wastewater agency staff as commenters/approvers of major infrastructure.

Management Response to Recommendation R5: Acknowledged, and no comment.

4.3 Audit Objective #3, Comparison to Peers

Audit Objective 3: Determine whether Brampton’s configuration(s) of Accela have capitalized on its optimal/full functionality as a DAP workflow tool.

Criterion ID	Criteria: Brampton Secures Effective Accela Performance Relative to Municipal DAP Peers Also Using Accela	Rationale for Criteria
3.1	<i>Is Brampton’s Accela configuration, staff practices/behaviours utilizing the tool, and software support consistent with the <u>City of Barrie’s</u> implementation?</i>	<p>Critical to realize any perceived Accela performance “problem” may or may not be about the functionality/configuration potential of the tool. It may be about platform support deficiencies or City DAP staff’s culture about how/when/whether Accela is populated and utilized. There are two well-regarded Ontario municipal peers that also use Accela – Barrie and Kingston, which serve to benchmark against Brampton.</p> <p>This will assess Brampton’s Accela configuration and practices relative to other well-regarded municipalities using the same platform. By comparing Brampton’s approach with that of Barrie and Kingston, it becomes possible to identify potential deficiencies. This benchmarking creates the much-needed “test” of Brampton’s utilization of Accela’s optimal functionality as a DAP workflow tool.</p>
3.2	<i>Is Brampton’s Accela configuration, staff practices/behaviours utilizing the tool, and software support consistent with the <u>City of Kingston’s</u> implementation?</i>	See above.
3.3	<i>Has Brampton created an inter-municipal working group with peers Barrie and Kingston (or even opened a channel of communication with peers Barrie and Kingston) on solving configuration problems, staff practices, and/or support?</i>	Brampton must verify if there are “best practice” performance improvement opportunities for the City associated with the deployment and configuration of Accela by other peer municipalities, specifically Barrie and Kingston. This explores the possibility of inter-municipal collaboration or communication to learn from successful implementations and overcome persistent problems.

4.3.1 Audit Objective 3 – Observations

To assess Brampton’s Accela configuration, staff practices/behaviours utilizing the tool, and software support, the Audit Team conducted the following peer benchmarking of the City of Barrie and the City of Kingston.

“Accela On-Premises” Configuration/Deployment

The Audit Team has documented that both peer municipalities have been using Accela for less than ten years, with Kingston’s deployment initiated in 2015 and Barrie’s back-office deployment in 2017 (re-design and portal implemented in 2018). Both peers selected Accela based on optimistic expectations of its public-facing portal, electronic plan review capabilities, and GIS integration. Both peers have a shared sense of ownership for Accela, meaning that their DAP staff teams across various technical disciplines (Planning, Engineering, Building) now embrace Accela as the definitive DAP workflow software they are all invested in.

The Audit Team has observed that both peers are using Accela for Planning DAP approvals, including pre-consultation, and Committee of Adjustment. However, one of the peers is not yet using Accela for the Engineering DAP phases of infrastructure design approval that occur after an initial Draft Plan of Subdivision approval. Notably, both peers have deployed Accela for Building DAP’s permitting, inspection, and occupancy approvals. The current Accela “Engineering DAP workflow gap” between subdivision and Building at one of the peers has been recognized as problematic, and Engineering DAP is slated for Accela integration in the near future.

While the time/effort to initially configure and deploy Accela is outside the scope of this Audit, the ability of Accela to nimbly reconfigure to address the recent and rapidly changing legislation in Ontario is within scope. In this regard, both peers indicate that Accela has been successfully reconfigured for Bill 109 adaptation, and that it was “a fairly straightforward process for us to incorporate new application types and fees associated with Bill 109 changes”.

Functionality – Tracking Application Processing Timelines

The Audit Team has observed that both peer municipalities have been able to effectively document the timelines for key processing milestones across core DAP application categories, as shown for Kingston in **Figure 13**. In particular, the “chess clock” timelines associated with back-and-forth technical review by the City and applicants have been documented. One peer noted that DAP workflow tracking discipline is needed to achieve this stating, “once we change the file status to ‘revisions required’, we input the date when we sent the technical review to the applicant... once it is re-submitted, we start a new technical review... all items are logged”.

The screenshot displays the Accela Civic Platform interface for Kingston. The top navigation bar shows the user 'JB' and the location 'KINGSTON'. The main content area is divided into several sections:

- Workflow Summary:** Shows the task 'Spatial Data Update' assigned to Ian Clendening, started on 06/06/2023 by Lianne Chu, with a due date of 05/21/2023. It indicates 5 completed tasks and 2 active tasks.
- Public Notice Task:** Shows the task 'Public Notice' assigned to Ian Clendening, started on 06/19/2023 by Riccardo Peggi, with a due date of 06/03/2023.
- Task Details Table:**

Task Details Public Notice	Status Date	Due Date	Action By	Action by Department
Current Status Complete	06/19/2023	06/03/2023	Riccardo Peggi	Development Planning
Assigned Date 06/19/2023	Assigned to Department Development Planning	Assigned to Ian Clendening		
- Comments:** A comment is visible: 'Public Notice of Receipt of Complete Application Sent Date 06/09/2023'.

Figure 13: Accela tracking “started” and “sent date” for a workflow in Kingston, to allow for “clock on / clock off” tracking

Interestingly one peer has configured its workflow milestones in Accela using a “drawbridge” approach. A status change confirmation for “milestone A” must be recorded in Accela prior to a status change in a subsequent “milestone B” can be recorded. No “open” status changes are permitted to corrupt timeline measurement reporting. Accela drawbridge configuration is driving this peer municipality’s strong behaviour of timely updating file status in Accela.

The peers noted that native configuration capabilities within Accela allow them to achieve “chess clock” timeline tracking that allows them to analyze the relative time a file is in municipal custody versus applicant custody. Both peers have used “bolt-on” analytics reporting tools to generate timeline tracking reports, such as SSRS Reports which is used by one peer and is shown in **Figure 14**. To view and analyze this fine grain timeline tracking in a dashboard format, one peer indicated that moving forward they intend to use a Microsoft PowerBI software solution.

Category	Submission to Incomplete	Submission Incomplete in Days to Accepted	Submission Accepted in Days (includes incomplete)	Review Started in Days	Inquire to Review in Days	Review Stopped in Days	Waiting for Review in Days	All Days Summed Up	Submission to Issuance Actual Date	Barrie vs Review Applicant's by Building	Review Days by Mechanical	Review Days by Plumbing	Review Days by Structural	Review Days by Other Buildings	Review Days by Tech	Review Days by Finance	Review Days by Engineering	Review Days by Water	Review Days by Source Water	Review Days by Zoning	Review Days by Fire	
Commercial	Accessory Structure	2,800	15	15	31	1	3	10	65	65	50	32										
Commercial	Site General	4,431	7	15	16	2	5	12	62	44	71	17	25.76	1.88	58.80	22	331	22	48	7	18	
	Other Temporary Structure	2,360	0	3	11	0	2	1	15	15	84	11										
	Shell Only	4,589	7	13	24	14	14	30	80	88	66	30	19.00	2.00		80	115	76	33	22	52	
	Site Servicing	2,300	10	13	19	1	5	13	46	47	65	21		0.33		21	188		16	8	36	
	Temporary Structure	3,339	0	8	13	1	4	9	31	36	78	14		13.00		12	345		13	12	8	
	Chimney	4,74	7	11	18	2	8	13	43	46	71	18	26.83	9.39	58.00	23	318	29	27	11	18	20
	Exterior Storage Tanks	7,00	12	10	12	0	2	4	35	35	55	12				3	400					
	Chimney	12,00	1	1	1	0	1	1	17	24	24	26										
	Retaining Walls	5,30	17	22	24	2	5	33	81	91	81	26										
	Signs	4,29	3	8	15	1	3	6	30	38	82	19										
Designated Structure	Signs General	5,00	0	4	0	3	0	10	18	100	9											
	Solar Panels	2,50	3	5	17	0	3	4	27	27	75	17										
	Accessory Structure	4,67	5	9	18	2	3	23	51	52	82	19	39.00	9.50		32	137	17	2	83	17	
Industrial	General	4,26	12	16	19	7	10	39	62	66	12	26	28.86	11.15	53.50	39	368	26	23	7	14	
	Shell Only	8,30	6	12	18	8	20	45	83	86	4	25		1.00	83.00	55	35	8	22	8	49	
	Site Servicing	5,00	10	10	16	6	7	20	70	92	37	22		1.50		63	83	12	29	29	18	
Institutional	Temporary Structure	2,300	19	21	19	3	3	0	43	43	56	22				20	110					
	General	4,44	12	16	19	7	10	23	64	67	95	27	29.03	9.22	50.40	49	364	24	34	14	24	
	Garage	2,34	6	10	16	1	5	35	62	42	27	17	18.80	10.71		19	342	22	35	15	14	
	Temporary Structure	2,46	3	6	8	0	2	0	15	17	76	3		4.60		5	127	7	1	4	7	
	Accessory Building	3,09	6	9	13	1	4	23	45	33	45	14	18.80	9.88		14	270	17	24	4	15	
	Boarding/Lodging/Rooming	7,50	5	12	10	1	2	11	33	34	72	10				4	455					
	Duplex	4,18	14	10	20	1	17	37	62	62	66	21				80	335					
	Group Home	10,00	1	10	25	5	14	2	39	44	58	33				43	30	2	70	136	43	
	High Rise Residential	4,00	8	12	19	7	18	47	85	88	29	29		3.00	11.00		68	582	271	174	8	
	Low Rise Residential	1,00	17	24	10	7	3	32	68	79	12	12	16.00			60	110	8	30	111	66	
Residential	Pools (Community)	2,00	4	4	8	0	5	11	62	80	39	31				0	3100					
	Residential Accessory Building	4,00	23	26	26	4	8	21	61	61	22	22				26	350					
	Residential Detch	4,58	13	17	23	3	2	20	62	69	88	28				22	582					
	Row House	4,36	12	18	24	1	2	11	63	78	33	33				76	258	16	1	170	8	
Residential	Single Family Dwelling	4,29	15	19	20	2	3	10	50	54	87	21	23.00			33	483	5	34	31	30	
	Site Servicing	3,3	16	19	17	6	4	11	73	77	30	30	22.00			75	472	4	19	10	20	
	Triplex	8,17	15	23	14	6	8	16	59	72	81	20	23.00			63	46	30	19	44	29	
Sewage System Permit	Sewage System Permit	8,00	0	5	18	0	3	9	32	32	74	18				17.00	11.00		30	38	29	
	Overall Average	8,98	11	17	22	2	7	17	54	61	88	24	25.80	9.73	53.00	32	480	11	35	28	24	

Figure 14: Accela detailed Timeline Report summary used by Barrie, to allow for “clock on/clock off” tracking

It is noteworthy that both peers are interested in a predictive Bill 109 timeline tracking solution/dashboard that tracks the status of Site Plans/ZBAs approaching/passing the calendar-day refund triggers of Bill 109; however, neither of them has developed such a dashboard yet.

Functionality – Priority Setting and Triaging Across Competing Files

The Audit Team has observed that the front-line Planning staff (file leads) at both peer municipalities have a dashboard that shows the status of their assigned files in one window. The task window for the individual planner shows the assigned task and their due dates. One peer noted the capabilities to set parameters for when a specific task is due. As they stated of Accela, “If a technical review commenting period deadline is coming up, it will move up the dashboard; if a public notice for a report is upcoming, it will move up the dashboard. The dashboard is live and re-prioritizes based on what is due.”

The same triaging opportunities are available for DAP staff that comment on files at both peer municipalities. These staff have a task window that shows the items that require their technical commentary/response. Key to this triaging opportunity across competing files is the commitment level of commenting staff regularly using Accela; if they are not going into Accela frequently, they obviously cannot see when new tasks are assigned. Staff behaviours are critical to capitalizing on Accela functionality.

As for priority-setting oversight by DAP supervisors/managers, the Audit Team has observed similar functionality at the peer municipalities. While supervisor/managers can see tasks assigned to their “group”, it seems that an overview of file status is not available at this aggregated level; rather, it is incumbent on the supervisor/manager to look up the individual staff and then the status of that staff person’s files can be viewed.

Functionality – Documents, Commenting, Workflows

The Audit Team has observed consistent document management and other functionality across the peer municipalities, with some quirks in Accela in part owing to its web-based interface. Both peers use Microsoft Outlook for their e-mail and there is no native way to drag an email message or email attachment from Outlook into Accela; rather, the file must be downloaded and then uploaded into Accela.⁴ One of the peers had explored an add-on document management software but found that this tool had limited functionality and was somewhat expensive; presumably, the Audit Team anticipates that there may be other such tools on the marketplace since consultation with the Vendor indicates a variety of document management solutions exist.

Further to this, once a document is stored in Accela, both peers note that third party programs are required to achieve “one-click” functionality. “One-click” functionality means that the user can open a file in Accela, work on it, and then return it back to Accela’s Documents tab without having to download/upload the file manually. This is consistent with the information provided to the Audit Team from the Vendor – Accela’s strength is not document management but there are tools that interface with Accela to optimize document management. One of the peers has already trialled DigEPlan Enhanced Document View for this purpose.

The Audit Team also inquired about sub-folders within Accela’s native Documents tab, since the creation of sub-folders to keep large volumes of information organized is well-understood by people in all types of occupations. One peer indicated that it uses Accela’s virtual folders for document management, whereas the other peer does not. As noted above, there are document management tools that interface with Accela that would provide optimized document management. Indeed, the Accela vendor has acknowledged to the Audit Team that Accela is “...a workflow tool and not a document management tool”.

When commenting on development files, the Audit Team has observed varying experiences with the peer municipalities’ evaluation of functionality with Accela. One peer did not express a concern with character limits or text formatting (word wrapping) using the Accela comment tool; the other peer does not use the comment tool at all, and instead uploads comments written out in Word or PDF format files. Once a staff member has made a comment and then submitted it, one peer indicates that it requires a supervisor to reactivate the task, whereas the other peer indicates that the staff can “un-submit” their comment, edit it, and re-submit it. Regarding automatic numbering of comments, one peer indicated

⁴ This lack of drag-and-drop functionality is not unique to Accela. In fact, the Audit Team is aware that many other web-based software platforms (including the globally used and widely popular Google Suite) do not have native drag-and-drop functionality. Those web-based interfaces or apps that do work with drag-and-drop have been coded or equipped with an add-on that “understands” this drag-and-drop action by the end-user. For an example of a website encoded with drag-and-drop functionality, see <http://remove.bg>

that it was “theoretically possible”, and the other peer indicated that numbering of comments is a manual task expected of their staff (file lead).

The Audit Team has observed that one of the peer municipalities has linked draft and final (phased) Plan of Subdivision workflows in Accela. When submitting material for a final (phased) Plan of Subdivision, one peer municipality’s application portal has “...a data field that is filled in by an applicant that states what Draft Plan of Subdivision the final plan is for... we also tie this to a mapping solution in our planning viewer that tracks all plans of subdivision.” The other peer municipality is simply using the related record feature in Accela.

With respect to clearance of conditions, the Audit Team has observed consistent functionality across peers, albeit this workflow is highly simplified. This exists in Accela as “a single workflow task for satisfying conditions [but] they are tracked manually.” In both peer municipalities, it is incumbent on the file lead to monitor fulfillment of conditions. On this point, one peer noted that, “it would be difficult to have [this developed in Accela] ... given the highly variable nature of each application.”⁵

Functionality – GIS Mapping

The Audit Team has observed both peers continue to rely more heavily on ESRI GIS applications even though Accela has a native GIS mapping tool. The Audit Team does not find this surprising; rather, it is expected given that the peer municipalities have invested in ESRI GIS for much longer than they have invested in Accela. One peer municipality relies entirely on ESRI GIS for spatial referencing, whereas another peer uses the native Accela mapping tool to a certain extent, and then relies on ESRI GIS for more advanced functions. Noteworthy, however, is that the peer municipality using Accela’s native mapping tool has achieved a seemingly acceptable level of integration with their spatial datasets – the Audit Team observed readily available mapping of Official Plan designations, zoning by-law categories, current development applications, and historic development applications in the peer’s deployment of Accela’s mapping tool as shown for Kingston in **Figure 15** below.

⁵ While outside the scope of this Audit, the Audit Team has a perspective that any workflow software (including Accela) could be configured to track conditions and their clearance, and that there is both efficiency and enhanced customer-service (e.g., value-added) in this workflow. The Audit Team is aware of at least one other workflow software that offers a separate specialized add-on module for condition clearance.

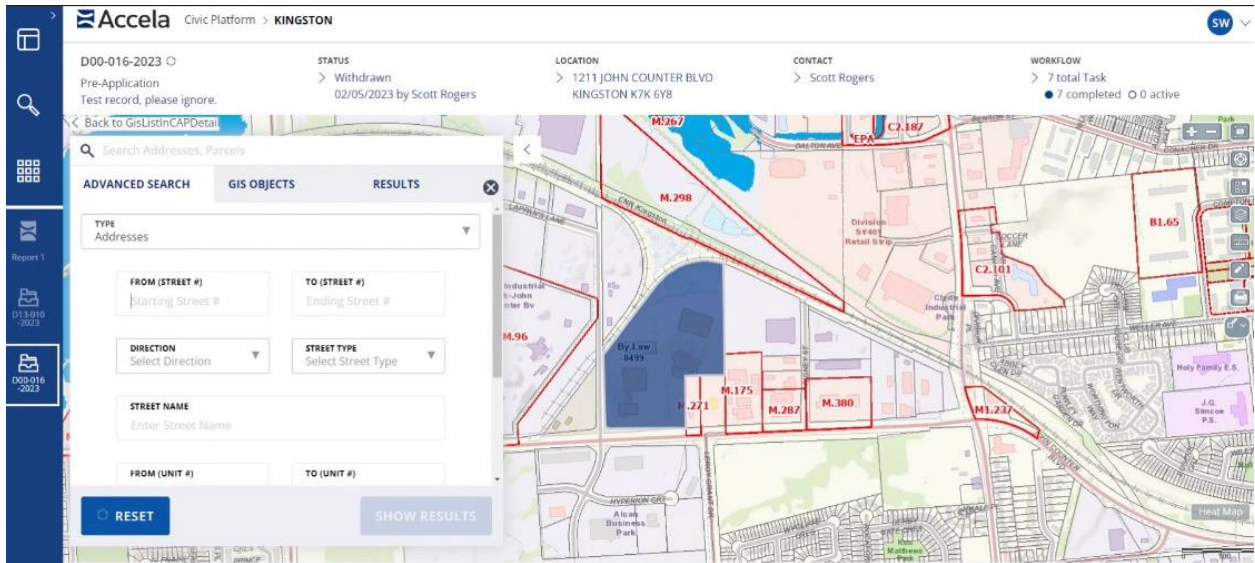


Figure 15: Many GIS layers are functional in Kingston’s deployment of Accela

The Audit Team posed the question, “When you open a file in Accela, can you click a link that will open the location of the development in a GIS map?” and one of the peers confirmed that this functionality did not exist. Given the web-based interface of Accela, this does not seem, in the Audit Team’s estimation, a particularly difficult hurdle to overcome through coding/scripting.

In terms of another minor functionality issue with GIS, the Audit Team confirmed with one peer that Accela appears to “remember” the last location being viewed in its native GIS interface; however, it does not appear to “remember” how the user’s layers were configured to render.

Staff Practices/Behaviours

It is the Audit Team’s experience that a combination of workflow tool “superusers”, a commitment to on-going enhancement of the granular activity-based workflows, and readily available analytic reports are needed for high performing DAP in any Ontario growth municipality. The Audit Team’s observations on the peer municipalities’ arrangement/deployment of Accela superusers is as follows:

- Neither peer municipality has dedicated superusers that provide specialized support and guidance to DAP participating employees when they encounter challenges;
- Neither peer municipality has superusers dedicated to software configuration enhancements for Accela, leaving staff to function predominantly as system administrators, and instead systems analysts/IT staff perform “script development”;
- While the peer municipalities do not have traditional superusers, IT staff are accessible to DAP staff; and,

- One of the peers has two IT support staff for about 75 users, whereas the other peer is currently understaffed (two instead of three) while also maintaining a recurring budget every year to backfill with contracted-out IT support.

Regarding day-to-day staff behaviour at the peer municipalities and how improvements are achieved, the Audit Team’s observations are as follows:

- One peer municipality uses open communication and tickets to track potential functionality fixes, whereas the other peer municipality schedules regular meetings with DAP staff to discuss issues, then “prioritizes them in the form of sprints”, and then schedules the roll-out of changes;
- One peer municipality has a scale to prioritize fixes and indicates that, “1 means we cannot process applications to 5 meaning it’s a ‘nice to have’”; and,
- Both peer municipalities have improved upon Accela in terms of greater automation, reduction of tasks within workflows, and better reporting.

Software Support and Inter-Municipal Collaboration

The Audit Team has confirmed a very consistent experience with Accela’s software support among the peer municipalities, which is also basically consistent with many types of software that are offered as “toolboxes” or “sandboxes” to organizations. On these points, the peer municipalities have confirmed that:

- The peers developed their own training;
- Accela training is provided internally, or in other words, staff with greater expertise provide training to new staff;
- The peer municipalities do not engage in activities such as regularly organized lunch-and-learns/webinars to continually building skill with Accela;
- Staff needing immediate help will reach out to one of the more experienced users, their immediate colleagues, or IT staff in their organization that are assigned to support Accela.

The Audit Team noted that the peer municipalities also shared a consistent opinion: there were no unexpected or hidden costs with Accela.

In terms of the inter-municipal collaborations between Accela peers Barrie and Kingston, there is no such working group of Ontario municipal Accela customers in place to share ideas, configuration solutions, staff practices and/or support. The observations made on Kingston and Barrie’s operations with Accela have effectively been captured elsewhere in this Audit Report.

4.3.2 Audit Objective 3 – Findings

The intent of Audit Objective #3 is to identify if Brampton has fully capitalized on Accela’s optimal/full functionality as a DAP workflow tool, in comparison to peer municipalities. To facilitate these findings, **Table 4-1** presents a summary of the key observations above, what the Audit Team knows about Brampton’s Accela implementation, and the relative comparison. Recommendations are provided further below the table.

Table 4-1: Summary of Key Observations of Accela’s Performance as a DAP Workflow Tool in Comparison to Peer Municipalities, City of Kingston and City of Barrie

Observations	Brampton Current State	Findings
Peer municipalities have a shared ownership of Accela across all DAP end-users	In Brampton, Accela is seen as “planning’s tool” by many staff	Brampton has not achieved full ownership of Accela by all staff involved in DAP
One peer municipality is used Accela truly end-to-end for DAP; other does not use Accela for the final approval process for subdivisions; both are using Accela for Committee of Adjustment	Brampton is not fully using Accela for Committee of Adjustment files; Brampton has a similar workflow gap with subdivisions as one of the peers	Brampton has room to improve Accela deployment
Peer municipalities have been able to nimbly reconfigure Accela to address Bill 109 workflow adaptations	Brampton has been able to nimbly reconfigure Accela to address Bill 109 workflow adaptations	Brampton is consistent with its peers
Peer municipalities have Accela workflows that can effectively document the timeline of development files, differentiating between processing time of the municipality and response time of the applicant	While Accela configuration has been relatively successful, Brampton is experiencing difficulty with reliable timeline tracking due to inconsistent staff documentation practices, and the ability for staff to move forward in workflow steps without closing preceding workflow steps	Brampton has room to improve Accela deployment
Neither of the peers have developed a Bill 109 refund risk dashboard	Brampton has successfully developed a Bill 109 refund risk dashboard, although staff documentation deficiencies have reduced data dependability	Brampton is ahead of the peers

Observations	Brampton Current State	Findings
Peer municipality front-line and managerial staff have a dashboard that communicates the status/urgency of tasks on a development file	Brampton front-line staff and management have a dashboard that communicates the status/urgency of tasks on a development file	Brampton is consistent with its peers
One peer municipality has investigated document management as a trial to help streamline how they handle documents	Brampton has not investigated alternative document management “bolt-on” solutions to augment Accela	Brampton has room to improve Accela deployment
One peer municipality does not have issues with the commenting tool in Accela; the other is not using it at all	Brampton has not resolved the issue with the commenting tool	Brampton has room to improve Accela deployment – it needs to implement the same fix as its peer
One peer municipality has a mechanism to link draft plan approvals with final (phased) plan of subdivision workflows	Brampton has not implemented an Accela workflow for final (phased) plan of subdivision approvals	Brampton has room to improve Accela deployment
Peer municipalities do not track clearance of conditions specifically in Accela	Brampton does not track clearance of conditions specifically in Accela	Brampton is consistent with its peers
Peer municipalities rely heavily on ESRI GIS and use of Accela’s native mapping varies	Brampton is consistent with its peers but there appears to be some room for improvement in comparison to how one peer has deployed spatial data into Accela’s native mapping tool	Brampton is slightly underinvested
Peer municipalities have a regime for identifying and operationalizing improvements	Brampton’s approach is ad hoc	Brampton has room to improve Accela deployment
Peer municipalities do not have formal superusers, but have IT that provide scripting and app development	Brampton is consistent with its peers but in the context of an ad hoc approach (above), effective app development becomes stymied	Brampton has room to improve Accela deployment
Peer municipalities conduct their own training	Brampton conducts its own training	Brampton is consistent with its peers

Observations	Brampton Current State	Findings
Peer municipalities rely on internal support for Accela	Brampton relies on internal support for Accela	Brampton is consistent with its peers

4.3.3 Audit Objective 3 – Recommendations

Recommendation R6: The Audit Team recommends that Brampton close the Post-Draft Plan Engineering DAP workflow gap to avoid falling behind on its workflow deployment.

Management Response to Recommendation R6: Acknowledged, and no comment.

Recommendation R7: The Audit Team recommends that Brampton achieve 100% compliance with time tracking and closure of workflow steps through further direction and training of staff.

Management Response to Recommendation R7: Acknowledged, and no comment.

Recommendation R8: The Audit Team recommends that Brampton improve its deployment of spatial data to achieve better functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R8: Management acknowledges the recommendation and requests prioritization of spatial datasets to best serve development approvals.

4.4 Audit Objective #4, Performance Improvements

Audit Objective 4: Verify if there are “best practice” performance improvement opportunities for the City associated with the deployment/configuration of Accela by other peer municipalities, and any apparent roadblocks for Brampton to adopt these best practices.

Criterion ID	Criteria: Brampton’s Actual Accela Functionality/Configuration Reflects Accela’s Optimal Functionality	Rationale for Criteria
4.1	<i>What are Brampton’s on-going concerns with its Accela configuration, staff practices/behaviours utilizing the tool, and software support?</i>	Brampton needs to understand whether “problems” with Accela are masked by lack of investment (e.g., pending upgrades), insufficient human resources, insufficient expertise, or an actual insufficiency in the platform itself. The on-going concerns need to be inventoried and tested against other users (Barrie, Kingston). This will help separate platform insufficiencies from other issues, and explore root causes if other issues become relevant to the ultimate solution.
4.2	<i>If there are problems that are persistent at Brampton which Barrie and Kingston have overcome (or indicate are resolvable), why hasn’t Brampton implemented these solutions?</i>	This assesses the root cause of persistent optimization problems at Brampton – to identify barriers, resource constraints, or contextual factors that have hindered the adoption of effective solutions. This will uncover underlying factors influencing Brampton’s ability to make full potential of Accela.

4.4.1 Audit Objective 4 – Observations

There are several on-going concerns regarding staff’s efficient use of Accela as a workflow tool. The challenges staff have been experiencing were revealed through structured interviews, as well as Accela-specific recommendations in the KPMG DAP End-to-End Report. The Audit Team has documented seven specific investigations to uncover where improvement opportunities are available.

Email Notifications Within Accela

Staff have expressed a difficulty in recognizing new applications when there is a multitude of existing applications on their dashboard. In their existing workflow, applications are submitted from developers through an online portal, which are then automatically sent to the Manager of Development Services' Accela dashboard. The manager then assigns the task to a specific planner, who forwards the application to other respective managers involved in the reviewing process (e.g. Policy, Parks and Recreation, Zoning and Signs, Accessibility, etc.). Most managers working with the platform allocate tasks to their staff through a summary email on Outlook. This is their primary method of notifying reviewers of new applications on their dashboard.

The Audit Team has observed that Accela offers a functionality that allows managers to automatically generate and send email notifications to designated reviewers when new applications are added to their dashboard. This feature is designed to streamline the notification process and enhance communication within the workflow. However, it was noted by the Audit Team that staff do not currently utilize this functionality as part of their business process. Brampton's decision not to employ Accela's auto-generated email notification feature is rooted in a rationale to reduce the volume of e-mails staff receive.

Virtual Folders and Accela's Document Management

The Audit Team has observed that Accela's document management system requires user input to a specific field to define the virtual folder. This virtual folder serves as a tagging mechanism to categorize and organize documents within the system (e.g., when planning staff have received documents on second circulation they can be organized into a separate virtual folder but only if tagged). While these virtual folders offer some ability to different groups of files during an application's lifecycle, the Audit Team has observed that it is not as intuitive as the "classic" approach to folders that end-users are familiar with in a Windows Operating System environment, and so to many end-users of Accela (and the Audit Team) experience is that the native Accela platform does not offer the capability to create subfolders within its document management structure. The Audit Team has observed that attempting to navigate through the files of an application with many documents and virtual folders can be difficult because there is no "folder tree" view that is common to Windows File Explorer.

The virtual folders, as they exist in Accela (shown in **Figure 16**) essentially act as document tags or labels rather than true subfolders with a hierarchical structure. While they allow for some level of organization and categorization, it's crucial to recognize that these virtual folders do not offer a comprehensive folder-based system for document storage and management. Consequently, the document repository in Accela becomes increasingly cluttered and challenging to navigate, especially as more documents are added over time.

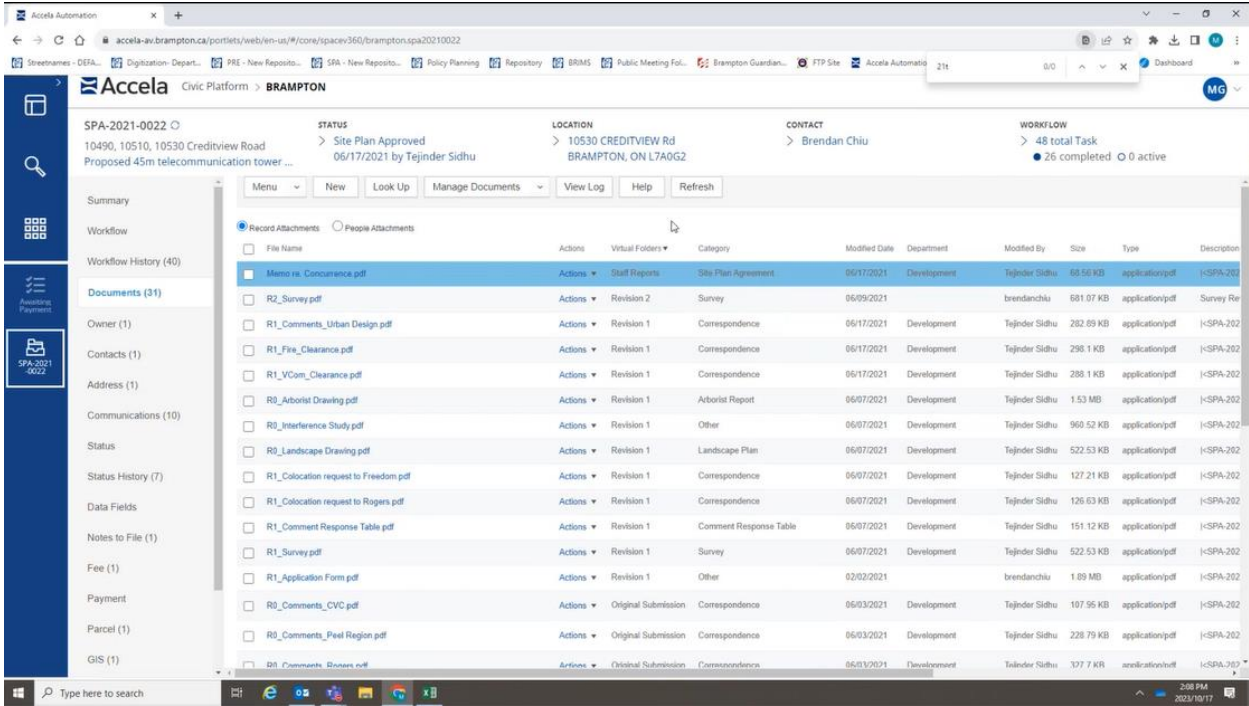


Figure 16: Virtual Folders in Accele using “Ascending” sorting function does not return results in chronological order of the workflow, and there is no “folder tree” view option

Moreover, the virtual folders column in the development application section of Accele does not provide robust filtering capabilities. Accele Users are limited to sorting documents in ascending or descending order, which means that reviewers still need to manually sift through numerous pages of documents to find what they are looking for. This limitation in the sorting and filtering functionality can potentially result in inefficiencies and increased time spent by Accele Users searching for specific documents, impacting the overall productivity within the system.

The Functionality of Accele’s Native GIS Map

The Audit Team identified limitations in the native GIS (Geographic Information System) map functionality within the Accele platform. One notable issue is that all addresses, although clickable within Accele, do not hyperlink to the GIS map. Instead, they are only clickable to edit the contents within the address field, as shown in **Figure 17**. This impedes the seamless integration of GIS data with development applications and limits the efficiency of accessing location-specific information.

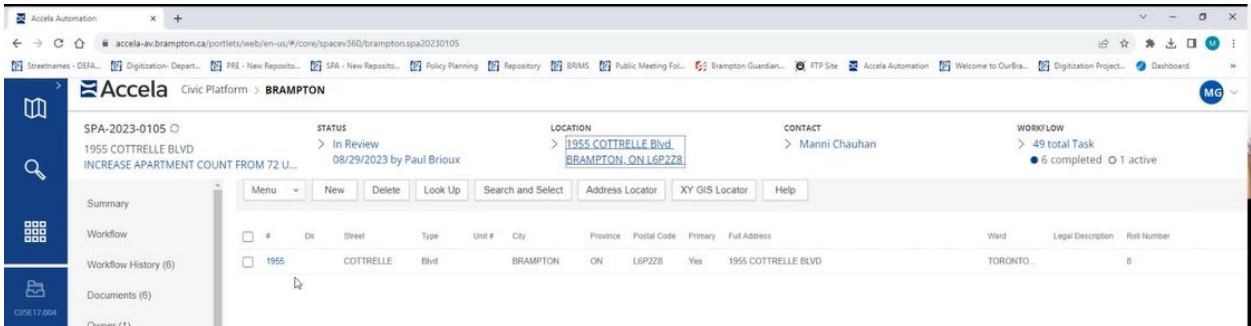


Figure 17: Result of clicking the hyperlink of the address

Additionally, when an application is opened in Accelea, there are two tabs that suggest a link to the GIS map: "Address Locator" and "XY GIS Locator." However, upon clicking on these tabs, the Audit Team has observed that an error message is displayed, "HTTP method POST not supported by this URL", as shown in Figure 18. This error message means that the web server has received and recognized the request but has rejected the specific HTTP method it's using; in practical terms, this means that the browser can't access the page it requested.

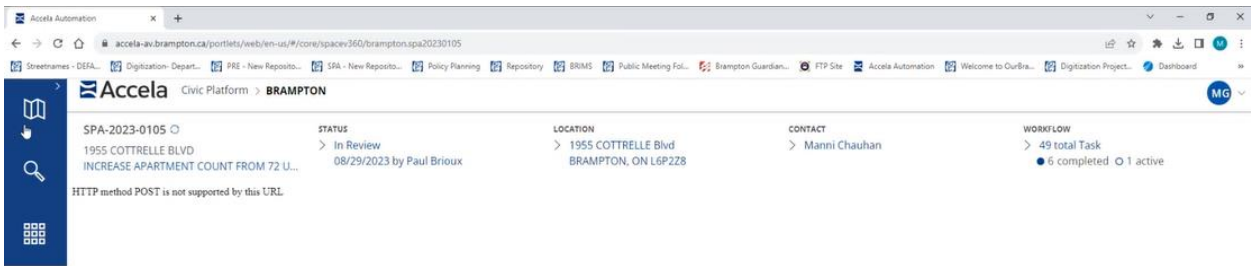


Figure 18: HTTP POST error message when attempting to navigate from the "Address Locator" and "XY GIS Locator" tabs.

The Audit Team has also observed some reluctance by staff using the GIS mapping feature within Accelea for several reasons. First, the GIS map lacks comprehensive information related to related records, which is crucial for informed decision-making. Secondly, the user interface's lack of hyperlinking addresses to the GIS map makes navigation less user-friendly and efficient. This user interface deficiency hampers the seamless integration of spatial data with development applications and complicates the process of accessing location-specific information, ultimately affecting the overall usability and productivity within the system.

Accelea's Integrated Global Search Function

The Audit Team investigated staff concerns with the search function in Accelea. When utilizing the search by inputting an address, for example, Accelea will return results that match the street address (this is intuitive) but will also return results that include components of the address that are found in other application's data (this is not entirely intuitive but is logical). This way searching is executed in the

system and the way in which results are returned is referred to as a “global search”. An example of this global search is shown in **Figure 19** and **Figure 20**. The logical but not necessarily intuitive search results becomes problematic with search terms appear in numerous files in Brampton returning a plethora of results when the end user has inputted a query that they believe is specific enough to pinpoint the record they want. When this occurs, the Audit Team has observed that this causes frustration and is an impediment to staff working as efficiently as possible with Accele.

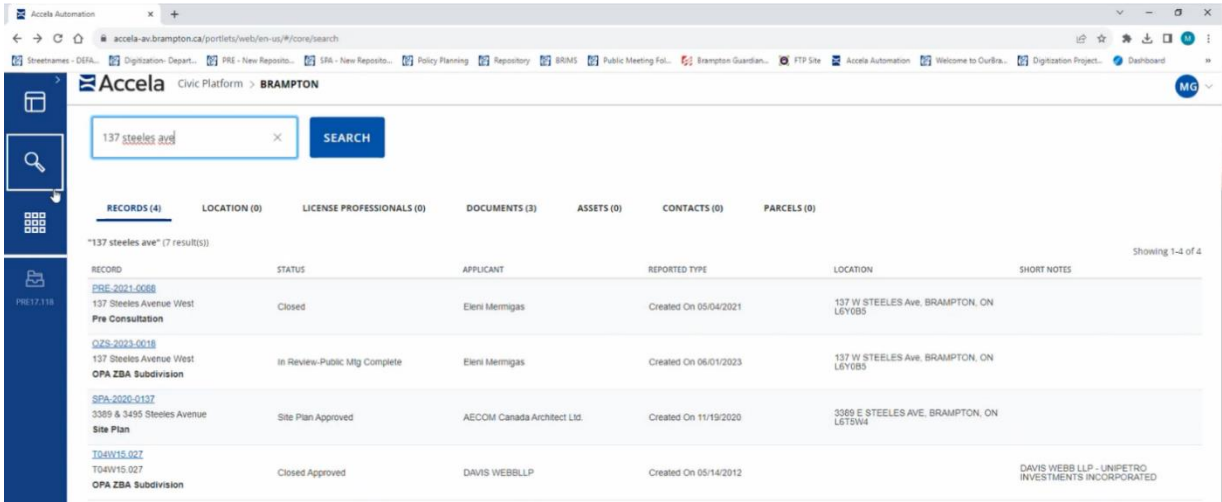


Figure 19: Searching documents using the standard street address – 137 Steeles Ave W (test 1)

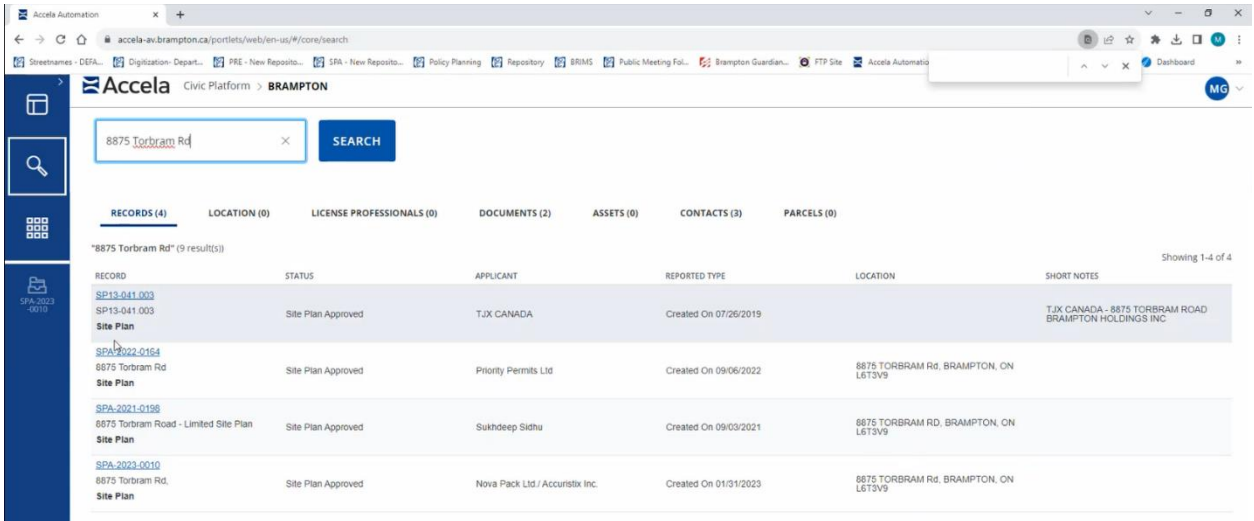


Figure 20: Searching documents using the standard street address – 8875 Torbram Rd (test 2)

The Audit Team has conducted an analysis of Accele's search function, aiming to address the inconsistencies and inadequacies in search results obtained when inputting an address. During the investigation, the Audit Team sought to enhance the precision of search results by employing Boolean

operations, specifically "AND" as well as by enclosing the address within quotation marks. The objective was to discern whether such operations could refine search outcomes and provide Accela Users with more accurate results.

When utilizing the "AND" operator, the search results indeed were different but did not yield the desired outcomes as shown in **Figure 21** and **Figure 22**.

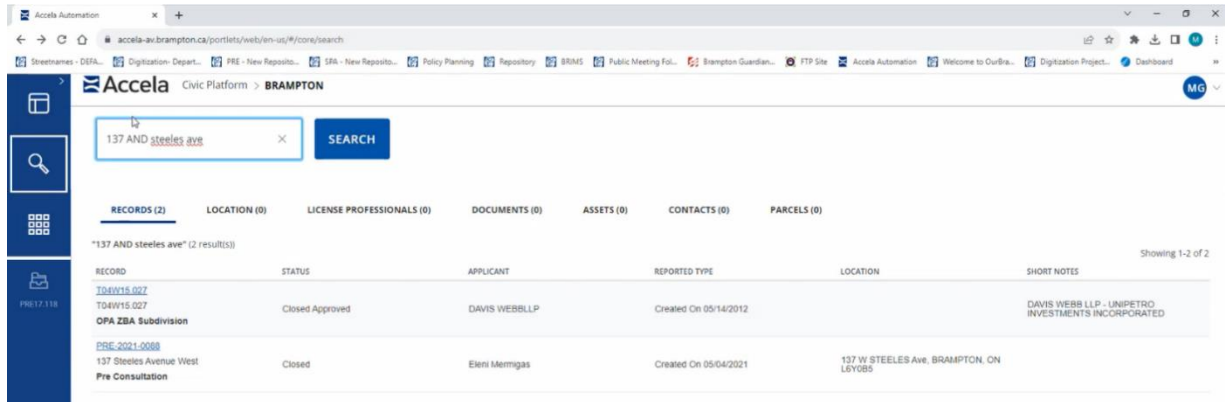


Figure 21: Searching documents using the Boolean “AND” operation – 137 Steeles Ave W (test 1)

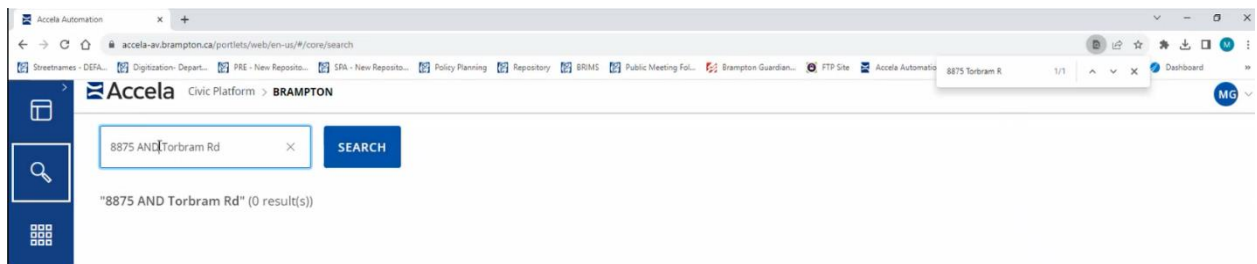


Figure 22: Searching documents using the Boolean “AND” operation – 8875 Torbram Rd (test 2)

Additionally, our testing revealed that enclosing the address within quotation marks did not result in more accurate outcomes. Instead, no results were returned when quotation marks were used, and these results are shown in **Figures 23** and **24**. For those end-users that expect this behaviour from a search tool, the unexpected resulting would be frustrating as the user experience.

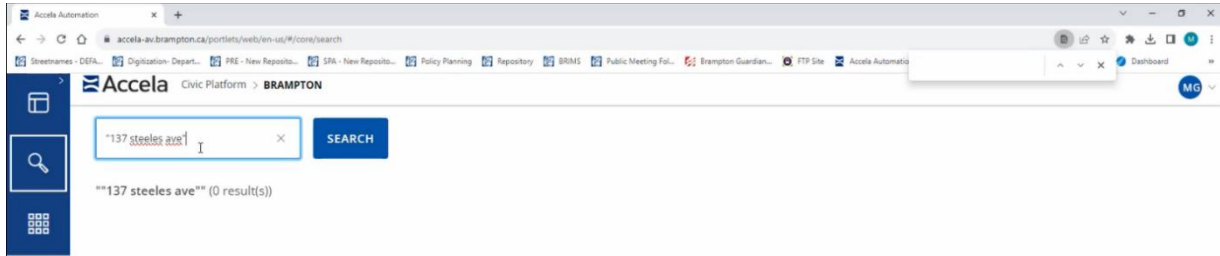


Figure 23: Searching documents using the Boolean quotation marks operation – 137 Steeles Ave W (test 1)

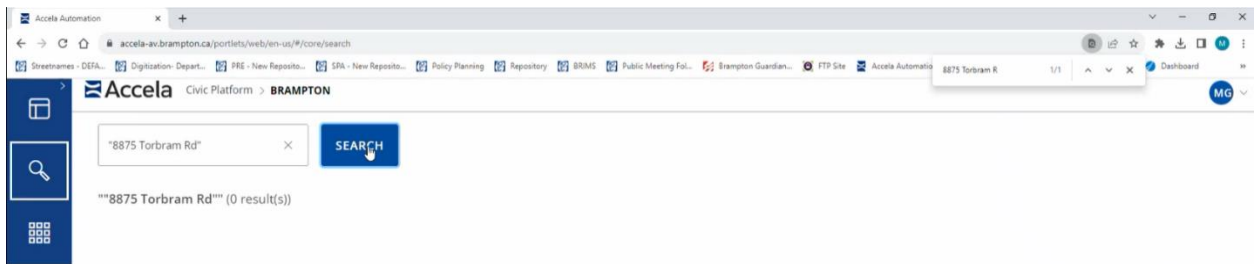


Figure 24: Searching documents using the Boolean quotation marks operation – 8875 Torbram Rd (test 2)

The investigation by the Audit Team into the search function validates the challenges cited by staff who are accustomed to search tools that typically return the expected result at the top of the list (of course, Google is the most prevalent of these tools but it operates at a level of robustness which puts it in a class of its own). In the absence of not being able to parse searches in Accela, and if Brampton is not able to alter how the search function works, then its only recourse is to provide a “tool tip” (an icon that pops-up an explanation if the user hovers their mouse over it) on how to operate the search effectively.

Accela’s Commenting Capabilities

The Audit Team identified a formatting glitch in how comments are displayed in Accela, particularly within the workflow history and reviewing process. When staff review completed tasks, the comments are displayed as one singular horizontal text, as shown in **Figure 25**. The Audit Team has observed that extensive horizontal scrolling is necessary to follow and read the entire comment for very long streams of text. This is cumbersome and hampers the ability for staff to quickly grasp the content and context of comments left during the review process.



Figure 25: Long text stream shown in Conditions section of completed Building Review

Additionally, comments in system are subject to character limits. This is not an Accela problem as the Audit Team has observed, and rather it is due to the City's configuration which combines comments and conditions in the reviewing tab for staff. This configuration sometimes poses challenges because reviewers are not able to provide comprehensive comments or conditions within the designated field, and must direct them to an external document, shown in **Figure 26**. In addition, this configuration poses challenges because in some cases, staff are required to provide a condition in order to clear the review, when they actually intend to input a comment. Consequently, the condition section in the final report often contains "N/A," leading to additional work for staff who need to clean up and clarify the report.

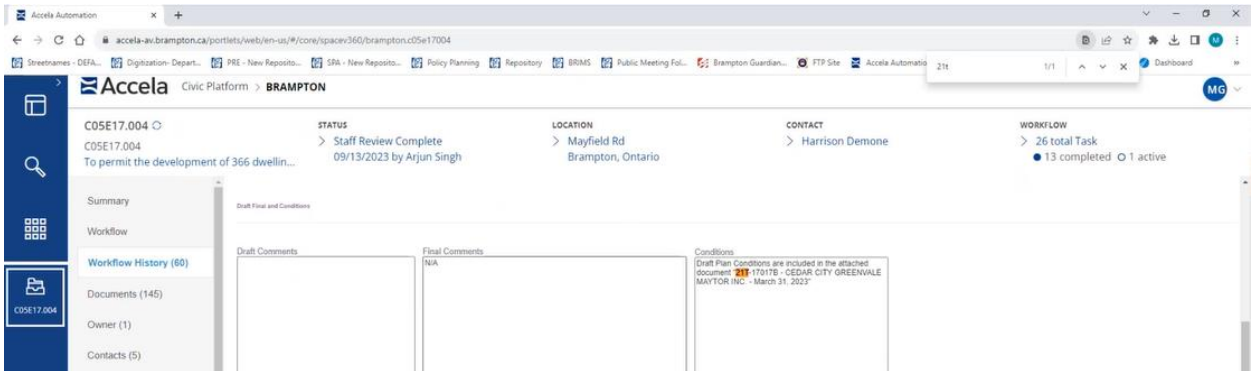


Figure 26: Example of reviewer using an external document to disseminate conditions of approval

A related issue is that staff sometimes place their comments in the condition section, particularly when they encounter character limits. This practice is misleading to file leads and the applicants, as it creates the impression of an additional condition they must meet instead of it being feedback or a required revision to their submission. This confusion leads to unnecessary back-and-forth communication and speed bumps in the review process, which ultimately impacts the efficiency and effectiveness of using Accela for development applications.

Lack of Related Records Inventory in Accela

The Audit Team identified a gap concerning the management of related records for subdivisions specifically when dealing with final plan of subdivision workflows. When a final plan of subdivision application is opened in Accela, the summary tab includes a "Related Records" section where the applicant can input the application number of associated files. However, it has been observed by the Audit Team that Brampton has not made this a required field. This means that no cross-reference to the

originating draft plan of subdivision approval is established at the outset by the applicant. If staff wish to back-reference the draft plan of subdivision during the final subdivision workflow, it requires them to manually look it up and this is not efficient. In the case that there is a related record, it is not “clickable” and has to be opened separately/manually; this circumstance is shown in **Figure 27**.

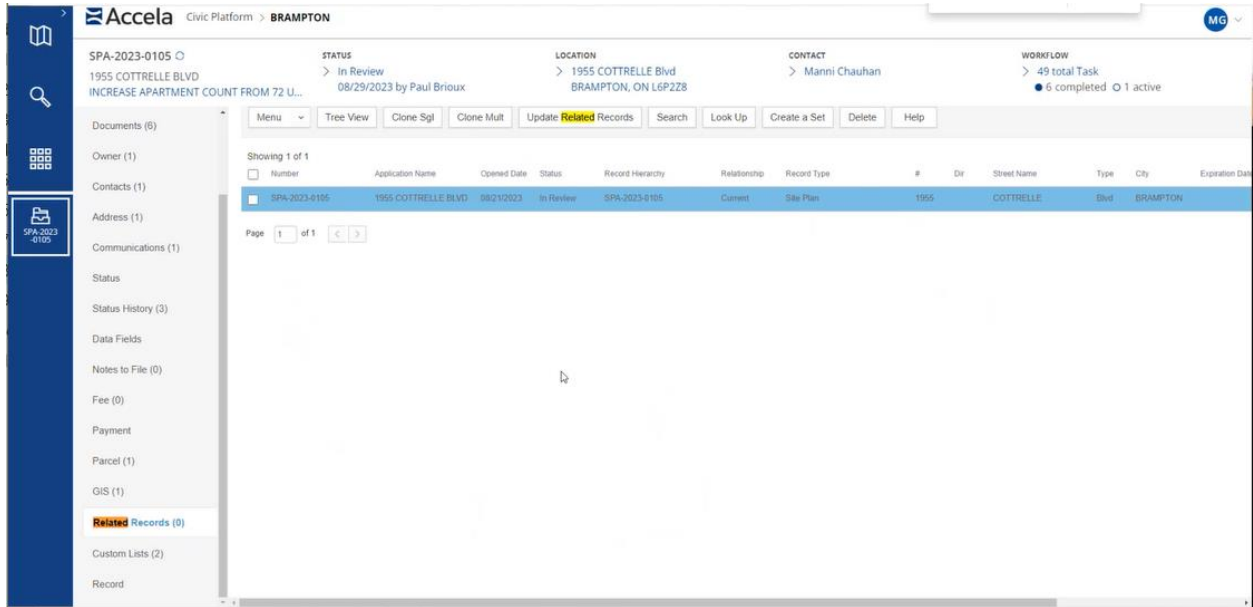


Figure 27: Output of Related Records tab, application number is not clickable

The City has informed the Audit Team that related records were previously stored in a geospatial manner through GIS. In this previous configuration, a property address search in GIS would yield all related records, offering a comprehensive view of the application's context. However, this functionality was in place prior to the implementation of Accela, and this integration has not been achieved in the transition to Accela.

The lack of easily-accessible related files in Accela represent pinch points that deter optimal efficiency of DAP in Brampton. Pinch points, if resolvable within Accela, are crucial to resolve because it will enhance the platform's usability and return efficiency dividends back to DAP in Brampton.

Bridging Between Accela and AMANDA

The Audit Team has observed that Brampton continues to operate with a significant gap in integration between Accela, the platform used for the initial stages of development applications, and AMANDA, the system for building permit management.

The Audit Team wishes to note that this is not a problem with the Accela platform – because Brampton did not purchase Accela with the intent of replacing AMANDA for Building Permitting functions. Brampton has invested in Accela solely for planning applications and the question is whether it is

possible to bridge Accela data with AMANDA data to provide an interconnected view of applications passing from one regulatory framework/platform, namely the *Planning Act* and Accela, to another regulatory framework/platform, namely the *Building Code Act* and AMANDA.

The Audit Team has observed that the data exists in Accela and the data exists in AMANDA sufficiently that the systems could “talk to each other”; however, Brampton has not made this connection. The absence of synchronization between these two platforms means that Management can still gain insights into the progress, status, or developments of applications moving from *Planning Act* approvals into the building permit stage within AMANDA but the effort by frontline staff to extract, distill, and generate the reporting becomes labour-intensive and cumbersome.

From another perspective, the lack of interconnectedness means that another labour-intensive process remains in place at Brampton which is also not efficient as observed by the Audit Team. Planners generate an Approval Memo within Accela, which typically includes a CC list of various stakeholders, including the Manager of Building Permits. The Planner then sends this memo to the Clerk, who subsequently forwards it to the Building Permits team. The Clerk's role then involves sharing the application number, Project Manager's contact information, and any potential questions or issues directly with the Building Permits team. The absence of a digital bridge between Accela and AMANDA necessitates this manual relay of information, introducing potential delays and the possibility of data discrepancies between the two systems, that could be easily avoided if the Accela and AMANDA systems were connected.

4.4.2 Audit Objective 4 – Findings

It is the Audit Team’s opinion that Brampton’s usage of Accela have revealed several challenges that hinder efficiency and productivity – very little of which is inherently due to failings of the software platform itself.

These issues encompass various aspects of the Accela platform, the primary tool used for managing development applications. The primary issues and propensity to resolve them are summarized as follows:

- The underutilization of Accela's auto-generated email notification feature – resolvable by Brampton;
- Accela's document management system – not a strength for Accela, and resolved by an add-on software tool;
- Native GIS map – HTTP 405 error is expected to be resolvable by Brampton;
- Global search behaviour – not a strength for Accela, but could be mitigated by Brampton;
- Comment formatting – appears to be resolvable by Brampton based on the web-based nature of Accela’s user interface;

- Related records for final plans of subdivision – resolvable by Brampton based on experience from a peer municipality; and,
- Bridging between Accela planning approvals and AMANDA building approvals – resolvable through application development, business intelligence software, or a combination of both.

In light of these findings, it is the Audit Team’s opinion that Brampton needs to move forward on fixes and enhancements required to optimize the end-user experience. This will empower Brampton’s staff to utilize the platform more effectively, thereby enhancing productivity and creating efficiency.

The Audit Team has found that only two issues that we tested are inherent to the Accela workflow software platform, namely the global search function and document management. Of these two, the user experience with global search could be mitigated, and document management is resolvable with an appropriate software add-on. Specifically on the matter of document management, this need was also noted during consultation with one of the peer municipalities; however, it had only gone as far as trialling one option. In comparison to this peer, Brampton is a much larger organization in terms of volume of applications and the number of staff involved, and in this regard document management becomes a necessity from the perspective of the Audit Team to extract full efficiency from DAP workflows.

The Audit Team notes that there are five issues that are within Brampton’s means to resolve, and while they remain unresolved the risk continues in the potential for delays, inaccuracies, and resource wastage, impacting the City’s ability to deliver the top-tier DAP that it is aspiring towards.

Through the investigation of Kingston and Barrie's usage of Accela, there are solutions to the ongoing concerns that Brampton is experiencing with its Accela implementation. Based on the observations in this Audit, the Audit Team is of the opinion that underinvestment may be the root cause of the problems, spanning a combination of insufficient training, insufficient “problem identification” (being able to actually pinpoint the issue underlying the initial end-user gripe), insufficient resources to design/execute fixes, and missed opportunities for cross-pollination of tools/techniques with peer municipalities. A foundation for this opinion is that the Audit Team has seen many of Brampton’s issues resolved or non-existent at the peer municipalities.

4.4.3 Audit Objective 4 – Recommendations

Recommendation R9: The Audit Team recommends that Brampton implement appropriate automated e-mail notifications to improve communication and workflow.

Management Response to Recommendation R9: Management acknowledges the recommendation, and has asked for a suitable volume of automated notifications.

Recommendation R10: The Audit Team recommends that Brampton invest in a document management solution compatible with Accela Cloud (or an alternative platform) to achieve the desired functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R10: Acknowledged, and no comment.

Recommendation R11: The Audit Team recommends that Brampton configure the GIS map to show related records geospatially (e.g., Draft Plan of Subdivision and Final approvals) and enhance the user interface for improved functionality.

Management Response to Recommendation R11: Acknowledged, and no comment.

Recommendation R12: The Audit Team recommends that Brampton explore the ability to improve the global search function (separately from a document management solution) and, regardless of its ability to improve the search, provide a tool tip alongside the search to improve the end user expectations/experience.

Management Response to Recommendation R12: Acknowledged, and no comment.

Recommendation R13: The Audit Team recommends that Brampton update the code behind the pages that display commenting in Accela so that character limits and/or text wrapping issues are resolved.

Management Response to Recommendation R13: Acknowledged, and no comment.

Recommendation R14: The Audit Team recommends that Brampton update the code behind the pages for the comment box and the conditions box, to better ensure that staff comments are entered into the correct field, and provide appropriate training on this.

Management Response to Recommendation R14: Acknowledged, and no comment.

Recommendation R15: The Audit Team recommends that Brampton sustain a working group with its Accela peer municipalities to share knowledge from time-to-time on configuration, improvements, tools, practices, and end-user needs.

Management Response to Recommendation R15: Acknowledged, and no comment.

4.5 Audit Objective #5, Underutilization Risk

Audit Objective 5A: Verify whether Accela’s performance as a DAP workflow tool is being limited by City staff’s traditional behaviours when populating Accela thereby underutilizing the Accela platform when executing DAP.

Criterion ID	Criteria: Brampton DAP Staff Teams Exhibit Rigorous Practices in Utilizing/ Populating Accela	Rationale for Criteria
5A.1	<p><i>Drawing from a random sample of 10 site plan files from 2022, is development tracking in Accela indicative of challenges related to staff’s “discipline” for data entry, storage of documentation, etc.? More specifically to this criterion:</i></p> <ol style="list-style-type: none"> 1. <i>Are workflows “closed” from 1st circulation before initiating the 2nd circulation cycle?</i> 2. <i>Are development engineering’s reviews found in Accela?</i> 3. <i>Is the Accela file appropriately marked as approved and “handed-off” in the system to the Building Permit process?</i> 	<p>End-user culture is critical to the success of any software platform’s success. Clarifying the impact of end-users’ consistency in populating, updating, and utilizing Accela versus the platform’s configuration/functionality performance is central to gaining clarity in this VFM Audit. The key is to identify how significant the “issues” with Accela are derived from DAP staff teams’ embracing of the platform and utilization behaviours (or lack thereof).</p>

4.5.1 Audit Objective 5A – Observations

The Audit Team requested an extraction of data from Accela for our independent review, and also conducted further in-depth investigation into the Accela records of the sampled files.

General Observations

The Audit Team has observed that the functionality of Accela performs the necessary tasks with respect to tracking workflow timelines and approvals from each stage of the approvals process; however, the adoption of workflow practices across staff and departments is inconsistent, and the Audit Team knows that this will result in subsequently inconsistent reporting for management purposes.

For applications requiring more than one circulation cycle, the Audit Team has observed that Accela records the date that the file is returned to the applicant (within the applicant controllable file days) when the assigned Planner stays within the workflow process. The evidence of this date is tracked in Accela when staff update the file task to “Review Consolidation”, which indicates that the staff’s report has been sent to the applicant outlining the additional submission requirements or revisions. The Audit Team observed two instances where this step was bypassed by the Planner, and as such the period of time that the file was within the applicant’s control is not tracked. During these instances, the only evidence that the file has been returned to the applicant (and is within their control) is when there is evidence of a new “Review Distribution” task (additional circulation cycles).

During our investigation, the Audit Team also made a supplementary observation. The tracking circulation cycles (after the first circulation cycle/development engineering review) become cryptic in the workflow due to a configuration issue. The task label “Review Distribution/Development Engineering Review” can only be assigned only once. To add a follow-on review cycle in Accela, the end-user recycles this task which is given a label that says, “Note”. This allows the Planner to make edits to the file and assign another development engineering review cycle, but does not include any file content. As such, tasks labelled with “Note” in the Status column are intended to mean that another Review Distribution cycle has been tasked but not completed. To the Audit Team, this seems unnecessary and definitely non-intuitive.

While the configuration issue above can create confusion tracking dates of application status with multiple review cycles, the Audit Team has observed underutilized features of Accela that would provide greater clarity when reviewing workflow timelines and past files, such as providing explanations and general commentary in the Comment column for each “task”.

Transition between Workflow Cycles

The Audit Team has observed that Accela records the date an application payment is received and this is considered by the City to be the date the file is first within the City’s control (in accordance with Bill 109).

The Audit Team has observed that typically the Review Distribution date (beginning of circulation cycle #1) begins immediately after (same day) or shortly after (within a few days) of payment being received, however the Audit Team has observed two instances where the Review Distribution date (beginning of

circulation cycle #1) occurs in advance of the date of payment, presumably to expedite the application review process for that file.

The Audit Team has observed that when a file task is changed to “Review Consolidation”, it tracks the date that the Review Consolidation report is sent to the applicant, marking the closure of the City’s controllable file days, and the file is back in applicant control.

The Audit Team observed that there is no automated process to notify the City when documents requested from the applicant are uploaded to Accela to satisfy the requirements of the Review Consolidation report. The Planner communicates directly to the applicant that they must notify the City when materials are submitted to Accela.

Additionally, the Audit Team observed that there is no workflow status configured to track when documents have been received from the applicant. The only indication of this in Accela is a new Review Distribution. This was configured intentionally by the City so that the Planner can double check that all materials are submitted and that the materials are sufficient, before triggering the next Review Distribution (circulation cycle).

Development Engineering

The Audit Team has observed that Accela tracks the date Development Engineering is tasked with a review, and the date that Development Engineering completes their review.

The Audit Team has observed that Accela provides text boxes for Development Engineering comments including “Standard Comments”, “Draft Comments”, “Final Comments”, and “Conditions”. The Audit Team has observed that staff do not always provide detailed comments through Accela, and in some instances note that “redlined comments have been provided directly to the consulting engineer” as shown in **Figure 28** below. As such, other staff do not have the ability to see the comprehensive/detailed comments provided to the applicant unless the commenting staff attaches a file and notes the comments are attached; the Audit Team did not observe this in the sample files that were audited.

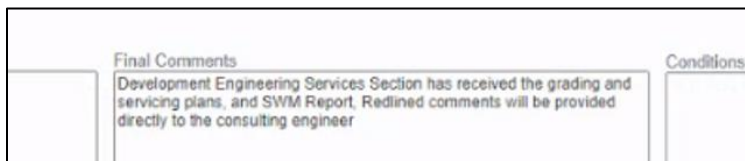


Figure 28: Comments provided separately and outside of Accela

The Audit Team has observed that when Development Engineering does not sign-off on the documents as submitted, they will add a Status of “Not Cleared”, and this date is tracked in Accela. Similarly, the Audit Team has observed that Development Engineering signs-off on files submitted by changing the status to “Cleared” and this date is also tracked in Accela. The Audit Team has observed that Development Engineering does not provide comments in Accela if a file does not require additional review cycles and its status is changed to “Cleared”, which is appropriate.

Closure of Site Plan Process, Transition to Building Permit

The Audit Team has observed that when a file is tasked “Release of Plans”, this is clearance to the Building Department to consider/issue a building permit.⁶ For a file to be tasked “Release of Plans”, there must be an approved Site Plan drawing stamped and dated as shown in **Figure 29**. Note that it is not the City’s responsibility to initiate a Building Permit; the onus of that rests with the applicant.

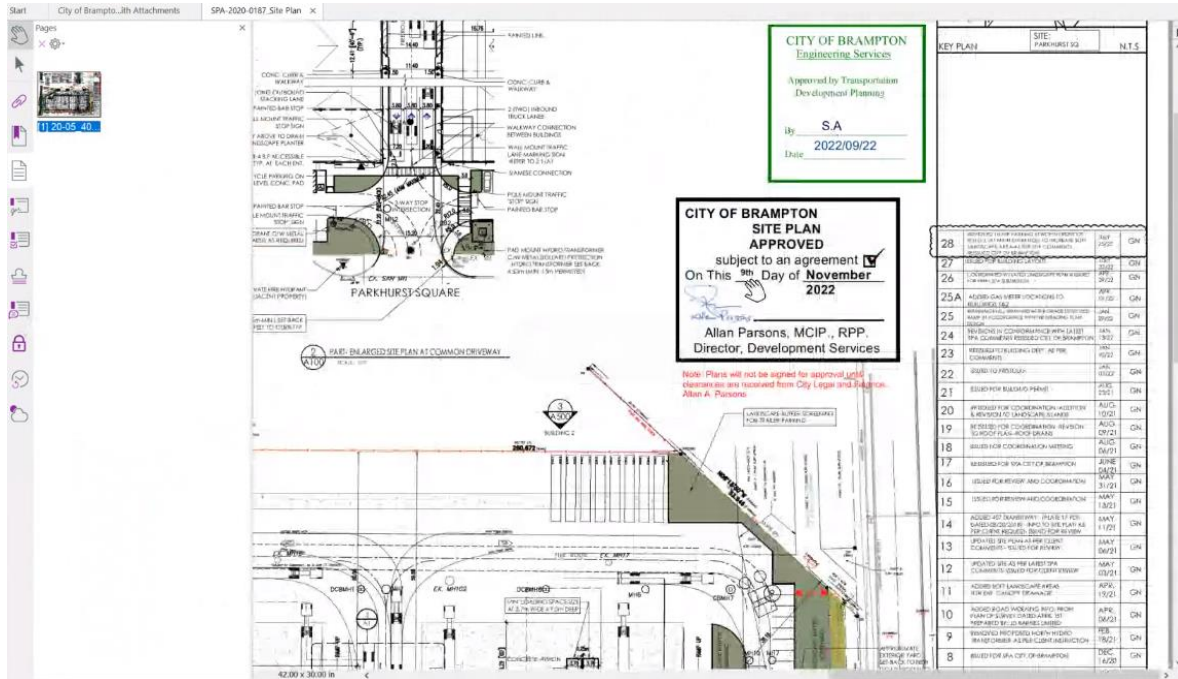


Figure 29: Example of an approved site plan, stamped and dated

The Audit Team has observed that there can be a large gap in time between the uploading of approved/stamped/dated Site Plan drawings, and the file status being updated to “Release of Plans”. It is assumed that during this time, there are agreements required or financial matters that must be addressed before full approval.⁷ The Audit Team has observed that during the period of time between the upload of an approved Site Plan drawing and the file status change to “Release of Plans”, the application is considered in mutual control of the applicant and the City, and it was not clear to the Audit Team whether Accela is configured to track this period of time as within the City’s controllable file days or not.

⁶ Note that a weak linkage between planning and building workflows/systems exists and this is discussed elsewhere in this Audit.

⁷ The Audit Team understands, for example, there is back-and-forth between the applicant and the City’s legal division during the course of negotiating a site plan agreement, and that there is mutual effort on both sides to reach the final milestone of the application being executed.

Summary of Observations

The following **Table 4-2** is a summary of the Audit Team’s observations.

Table 4-2: Summary of Audit Objective 5A observations

Observation No.	Are workflows “closed” from 1st circulation before initiating the 2nd circulation cycle?	Are development engineering’s reviews found in Accela?	Is the Accela file appropriately marked as approved and “handed-off” in the system to the Building Permit process?
1.	✓	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓
2.	✓	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓
3.	✓	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓
4.	X Date consolidated comments went back to applicant was not input into Accela. Deviated from Accela workflow.	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓

Observation No.	Are workflows “closed” from 1st circulation before initiating the 2nd circulation cycle?	Are development engineering’s reviews found in Accela?	Is the Accela file appropriately marked as approved and “handed-off” in the system to the Building Permit process?
5.	✓	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓
6.	✓	N/A No Development Engineering Review Required	✓
7.	X Date consolidated comments went back to applicant was not input into Accela. Deviated from Accela workflow.	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓
8.	✓ No second circulation required.	✓ Cleared initial file submission documents, no comments required.	✓
9.	✓ Bill 109 file. Review in advance of payment, limited to one circulation review.	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓ ⁸

⁸ Site Plan approved, pending clearance of conditions; was not prematurely released for Building Permit, which is appropriate.

Observation No.	Are workflows “closed” from 1st circulation before initiating the 2nd circulation cycle?	Are development engineering’s reviews found in Accela?	Is the Accela file appropriately marked as approved and “handed-off” in the system to the Building Permit process?
10.	N/A Consolidated comments have been sent to the applicant. File is currently with the applicant pending response/resubmission.	? Development Engineer noted that redlined comments sent directly to consulting engineer. Deviated from Accela workflow.	✓ File is not prematurely marked for release to building permit stage.

4.5.2 Audit Objective 5A – Findings

The intent of Audit Objective #5A is to verify whether Accela’s performance as a DAP workflow tool is being limited by City staff’s traditional behaviours when populating Accela thereby underutilizing the Accela platform when executing DAP.

The Audit Team has found inconsistent use of Accela since there were instances observed where 1st circulation was not closed in the sample files. The Audit Team finds that while the functionality of Accela supports the tracking of Development Engineering comments, there is a deviation working outside of Accela in all but two instances. In the eight instances observed by the Audit Team, a general comment is provided but the materials are being provided directly back to the applicant’s consulting engineer and the documentation of these comments or redline revisions was not observable in Accela by the Audit Team. The Audit Team is concerned that this end-user behaviour detracts from the power of Accela to coordinate workflows and, more importantly, equip Management with the good quality information it needs to enable data-driven decision-making. This is particularly important when Brampton faces refund risk due to Bill 109 and need to pay close attention to the pipeline of development on the way to meeting its noble housing pledge.

The Audit Team recognizes that the ethos at Brampton is to work with the applicant. On the matter of engineering review, the Audit Team understands that it is customary across many Ontario municipalities for the municipality and the applicant’s consulting engineer to engage in dialogue and information sharing as an informal sub-workflow. This real-time problem-solving and collaboration is intended to facilitate a good quality resubmission that moves the application closer to an approval. The Audit Team believes that there is a workflow gap, and that if the workflow was updated (or a subworkflow designed) then that would achieve continuity of file tracking for development engineering’s collaborative approach with applicants.

In all instances, and on a more positive note, the Audit Team finds that files are appropriately marked as approved and “handed-off” in the Accela system so that the Building Permit process can be initiated.

4.5.3 Audit Objective 5A – Recommendations

Recommendation R16: The Audit Team recommends that Brampton provide further direction to staff on the necessity of updating status in the workflow(s).

Management Response to Recommendation R16: Acknowledged, and no comment.

Recommendation R17: The Audit Team recommends that Brampton conduct spot-checks from time-to-time to assist with identifying staff that may need additional training/coaching on their workflow environment.

Management Response to Recommendation R17: Acknowledged, and no comment.

Recommendation R18: The Audit Team recommends that Brampton implement a workflow update that better tracks development engineering’s collaborative approach with applicants that will provide better continuity for the overall workflow.

Management Response to Recommendation R18: Acknowledged, and no comment.

Recommendation R19: The Audit Team recommends that Brampton resolve the configuration that causes the “Review Distribution/Development Engineering Review” task to be labelled with a cryptic “Note” and correct this label to be understandable.

Management Response to Recommendation R19: Acknowledged, and no comment.

Recommendation R20: The Audit Team recommends that Brampton utilize a “drawbridge” workflow configuration to require staff to close/update file status before being able to progress to completion of subsequent processing milestones.

Management Response to Recommendation R20: Management acknowledges the recommendation and recognizes that improved operating procedures may be needed to ensure that staff undertake file status updates immediately after leadership approval is provided.

4.5.4 Audit Objective 5B – Observations

Audit Objective 5B: Determine whether there are evidence-based improvement opportunities for City staff to populate/use Accela resulting in increased performance and supporting a high-performing DAP service delivery model.

Criterion ID	Criteria: Brampton Deploys Ongoing, Sufficient Maintenance/Support for Accela Platform	Rationale for Criteria
5B.1	<i>Do staff training records confirm that all City staff users participating in DAP (including immediate Development Planning staff and other internal partners) have received Accela training commensurate to the required level to carry out their DAP function?</i>	For DAP to perform properly, the Accela central nervous system must include all DAP participants across the City. Without proper staff training and ongoing support, DAP performance will suffer. Improperly/inadequately trained staff will resort to working outside Accela, thereby eroding the inherent workflow efficiency of the software and eroding the quality/dependability of performance data generated in Accela reporting.
5B.2.1	<i>Are there any GIS applications, drawing mark-up tools, and commenting tools that still need to be integrated across the Accela platform for core DAP application categories?</i>	Integration of property-specific data for an applicant's project (across the Planning DAP & Building DAP journey) is a best practice. If not available to staff, the integration of drawing mark-up tools with a properly tracked Planning file workflow will significantly improve efficiency. Brampton's Building Department has already integrated BlueBeam mark-up software with AMANDA, so this confirms that the needed tools are in place for DAP.
5B.2.2	<i>Are there any hardware constraints to optimizing the integration of GIS applications, drawing mark-up tools, and commenting tools that is <u>unique to Accela</u>?</i>	In a fully digitized workflow, some degree of hardware upgrade may be expected (e.g., large high-resolution flat panel displays become a necessity to review drawings normally provided on A1 / Arch D paper); the key concern is whether any of these matters are specifically related to Accela.

Criterion ID	Criteria: Brampton Deploys Ongoing, Sufficient Maintenance/Support for Accela Platform	Rationale for Criteria
5B.3	<i>Does/can the Accela configuration provide the necessary workflow tracking/information sharing linkages to the Brampton Building Department’s AMANDA platform?</i>	The potentially problematic workflow tracking fragmentation (silos) created by separate Planning DAP and Building Permit workflow tools needs to be considered. The “connectivity bridge” of Accela to AMANDA needs to be validated as suitably functional.
5B.4.1	<i>Has Brampton invested fully in Accela support so that it gains continuous skills development (lunch and learns, webinars, etc.), helpdesk chat-based and phone-based support, helpdesk e-ticket support, self-help online tutorials or FAQs, and/or a searchable knowledgebase?</i>	The audit must confirm whether Brampton has invested in enhancing user competence and addressing support needs to maximize system utilization. This will clarify if Accela users are making the most effective use of the platform’s features and functionalities (i.e., end-user competence is a non-issue).
5B.4.2	<p><i>Is Accela supported with sufficiently dedicated, robust technical personnel to ensure optimal configuration, and data storage/version control; including specifically:</i></p> <ol style="list-style-type: none"> <i>1. Super-users within the Planning Department or IT?</i> <i>2. System administrators within the Planning Department or IT?</i> 	Accela is the central nervous system of managing/executing DAP which is a critically important service for Brampton. Therefore, Accela must be robustly supported with various super-users and other technical support expertise.

To discern whether there are inherent problems with the Accela platform or if problems exist outside the software itself, a series of investigations were conducted by the Audit Team, including various demonstrations of tools and Accela functions, and discussion of resources.

From the perspective of end-user competence, the Audit Team has observed that there is no fully formalized training regime in place for Accela even though this workflow software is the backbone for the City’s mission critical DAP. There is no training program that establishes a benchmark of knowledge and/or skill for different end-users, even though this both expected and appropriate given the varying levels of usership (frequent usage by front-line file leads vs infrequent commenting function by certain staff receiving files on circulation) across a very large userbase. As a result, there are no training records that document staff’s competence with the Accela platform.

The Audit Team has observed that the day-to-day tools are available to staff.⁹ They key technical software beyond the basic office suite include Bluebeam Revu and ESRI GIS. Respectively, Bluebeam Revu allows staff to clearly see complicated technical drawings on their computer screens, and provide annotations and mark-ups on these drawings. ESRI GIS provides staff with spatial data, base mapping of Brampton, and data layers relevant to development approvals (e.g., previous development applications). The Audit Team has observed, through inquiries with a wide variety of staff, that they indeed have suitable access to Bluebeam Revu and ESRI GIS.

The Audit Team also conducted an investigation of hardware, from both an end-user perspective and from the perspective of the server requirements for Accela on premises, to check for any “blind spots” related to hardware requirements. The Audit Team found no concerns with end user hardware and staff confirmed, for example, that they had suitable large flat panel displays to view technical drawings that would have formerly been printed on Arch D or Ansi D paper (approximately 24 inches by 36 inches) as illustrated in **Figure 30**.

No end user staff interviewed by the Audit Team indicated that hardware was a constraint to their effective use of Accela. This is partly because Accela uses a web-based interface, so any late model computer reasonably equipped to browse the web would work well enough for an end user of Accela. Further investigations with IT staff by the Audit Team also confirmed that there are no server hardware issues; in other words, no additional hardware investments are needed by Brampton to achieve optimal installation of Accela. Having observed Accela in use by a variety of staff, the Audit Team did not observe any apparent lag with the system and did not observing any software “crashes” during the course of the investigation, and is therefore of the opinion that end user and server hardware is adequate as reported by staff.

In the assessment conducted by the Audit Team for the Criteria under this specific Audit Objective, the Audit Team has observed that a tool such as an Application Programming Interfaces (API) allows modern-day software to “speak to each other” and this is also the case with Accela. In both discussions with IT staff and the Vendor, reference is made to customization using Accela’s API that can create bridges between Accela and many other types of software. Whether or not this gap between Accela and AMANDA is a concern has been addressed elsewhere in this Audit Report.

⁹ The discussion of how tightly they are integrated with Accela is discussed in elsewhere in this Audit’s commentary on document management.

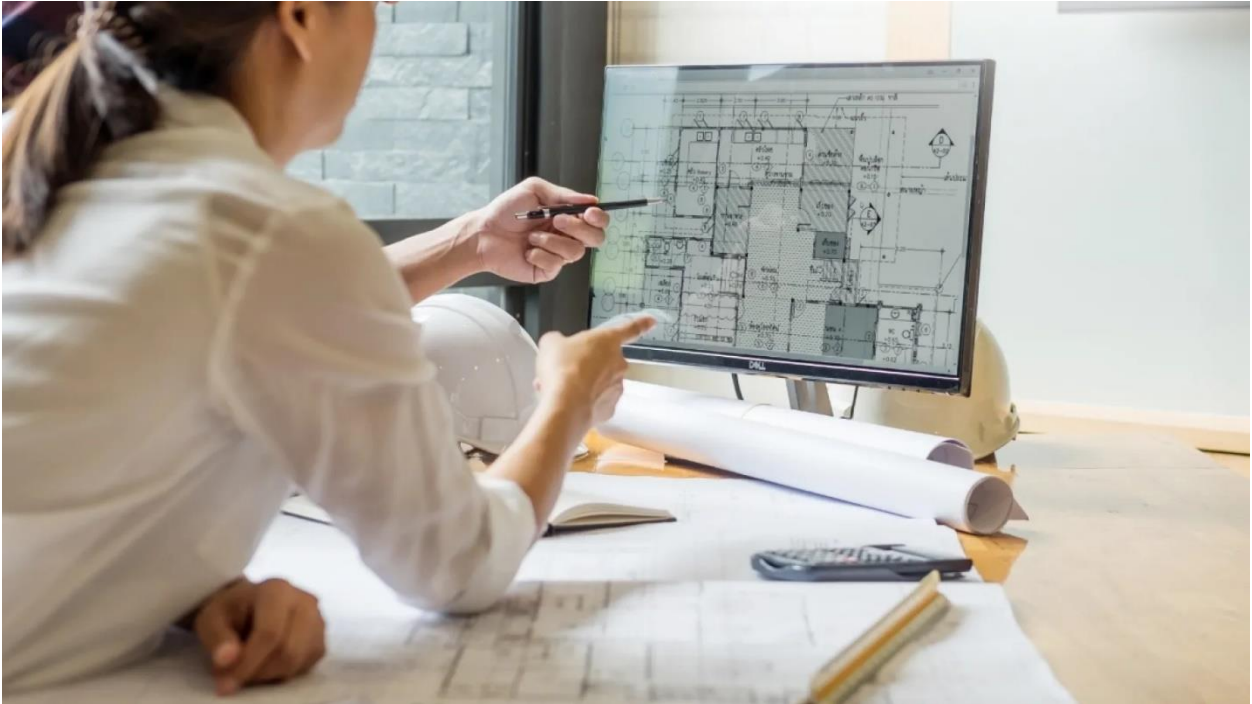


Figure 30: Depiction of team members reviewing technical drawings on a large flat panel display

The Audit Team’s investigation next addressed the matter of software support which in any organization exists in two basic ways: (1) software support provided externally, whether it is directly from the Vendor or from a third party; and, (2) software support provided with in-house resources.

The Audit Team has observed that Brampton does not organize any internal lunch-and-learns to facilitate its own internal software support, which would have the added benefit of identifying continuous improvement opportunities. Since the reliance is on staff to help one another day-to-day, there does not appear to be any Brampton-created web videos that serve as an internal knowledgebase.

In terms of the services purchased by Brampton from the Vendor, the Audit Team has documented the status in the **Table 4-3** below.

Table 4-3: Summary of software support elements purchased by Brampton from the Vendor

Software Support Element	Available for purchase from the Vendor	Purchased by Brampton
Live webinars	Yes	No
Helpdesk chat-based support	Available for Accela Cloud	N/A – Brampton does not have Accela Cloud
Helpdesk phone-based support	Yes	No

Software Support Element	Available for purchase from the Vendor	Purchased by Brampton
Helpdesk e-ticket support	Yes	Yes
Self-help online tutorials	Yes	Only free tutorials; paid-for tutorials are not offered
Online FAQs or searchable knowledgebase	Yes	Yes
Online user community	Yes	Yes

The Audit Team has observed that training is provided through staff knowledge transfer when a new employee joins the team; formalized continuous skills development is not in place and rather it is informal skills development that is achieved through end-user trial-and-error/on-the-job experience, asking various staff colleagues for help, or asking IT for help.

In terms of having robust and sufficiently dedicated technical personnel to ensure optimal use of Accela, the Audit Team has identified that there are resources at Brampton. The Audit Team spoke with three IT staff that we have characterized as the front-line system administrators that are also involved in configuration/application development; there are two planning department staff, although neither are dedicated to Accela full-time but are known by other staff as the “go to” colleagues when they have a question, which we have characterized as ad hoc super-users. Since there are no training records, it is difficult for the Audit Team to independently assess the system administrators’ and superusers’ level of competence.

4.5.5 Audit Objective 5B – Findings

The intent of Audit Objective #2 is to determine whether there are evidence-based improvement opportunities for City staff to populate/use Accela resulting in increased performance and supporting a high-performing DAP service delivery model.

The Audit Team finds that Brampton lacks a suitable robust training regime for Accela beyond the initial orientation offered to staff and that everything else is basically ad hoc. This is a concern because end-user skill is a significant key input to achieving optimal DAP process performance from the workflow software; moreover, consistent and skillful use of Accela allows it to generate consistent and reliable business intelligence to facilitate management’s data-driven decision-making to continually improve DAP in Brampton.

On a more positive note, the Audit Team has found that Brampton is sufficiently equipped with the related drawing mark-up and commenting tools; however, there is a gap in document management that makes these tools seamless with Accela, and this document management issue is discussed elsewhere in this audit. As far as the Audit Team can observe, there does not appear to be any shortfall in the

availability of BlueBeam Revu or ESRI GIS that would otherwise hinder staff's optimal use of Accela. Similar for hardware, the Audit Team finding is that Brampton is suitably equipped, and expects that customary updating of hardware to remain current with business operational needs would be sufficient to support Accela configuration and functionality.

Through the existence of an API, the Auditors have found that a bridge between Accela and AMANDA is technically possible. Brampton has not built this bridge and so it remains with the municipality to advance this work on a go-forward basis.

On the matter of internal support, the Audit Team finds that Brampton is lacking in this regard and there is room for improvement. It is the Audit Team's experience with other organizations running mission critical workflow software that there is some regime of reoccurring knowledge-building, whether it takes the shape of simple lunch-and-learns or clinics, to more substantial productivity days and even in-house conferences (full learning days designed to rapidly enhance skill). In fact, when the Audit Team posed the question to a variety of front-line staff during the structured interviews, there was a resounding common opinion that on-going learning opportunities for Accela were welcomed and appreciated.

Furthermore, the Audit Team finds that there is no well-organized structure for front-line staff to communicate problems that need to be fixed. Through discussion with the peer municipalities, the Audit Team is aware that a regime exists to identify fixes, prioritize them, resource the solution, and then roll-out the solution at the peers. In the absence of this at Brampton, minor but easily resolvable fixes are never identified nor resolved, and are left to snowball over time that introduces inefficiency (loss of productive time) to DAP, rather than optimizing Accela to enhance efficiency.

Brampton could purchase additional support from the Vendor; however, this is not the default opinion of the Audit Team on the matter of enhanced support. Noteworthy is that Accela is a "toolbox" or "sandbox" type of software which means that system administrators can achieve a significant degree of customization; this usually means that external support from the Vendor becomes less effective as Brampton achieves greater customization of the software. This means that support can continue to be delivered internally and this means that resourcing is key, which is discussed below.

The Audit Team has counted four system administrators and two staff functioning as ad hoc super users providing support to Accela. One of these users is predominantly dedicated to supporting Accela (but not 100%) and the other staff are only supporting Accela on a part-time basis. The Audit Team has determined that the level of support at Brampton for Accela is 2 FTEs and questions whether Brampton's total resources are sufficiently robust. The Audit Team's observations of unresolved "problems" identified by front-line staff through this audit – in addition to the 22 pain points described in the 2022 End-to-End Development Application Review report – suggest that there is either a lack of communication (i.e., front-line staff do not know who to report problems to) and/or insufficient resources (problems have been known for a while but other priorities supersede staff's resolution of these problems). In this regard, peer comparison/benchmarking identifies that the Accela support averages 1 FTE per approximately 75 end-user staff, and so based on a Brampton end-user base of

approximately 185 staff, the organization appears to be under-resourced by approximately 0.5 FTEs. This is a straight-line calculation of resources and does not take into the considerations such as a more robust regime for triaging problems/fixes, coordination of skills development, increased sophistication of staff over time demand more sophisticated functionality (additional need for customization), support for a document management add-on, and the yet-to-be-implemented recommendation for Committee of Adjustment to be fully handled by Accela.¹⁰ When all these other factors are considered, it appears that these additional demands could justify at least 1 FTE for a new superuser/system administrator to achieve the desired level of support for Accela.

4.5.6 Audit Objective 5B – Recommendations

Recommendation R21: The Audit Team recommends that Brampton design a formal training regime for its workflow platform end-users, benchmark user skills, and then implement appropriate training to enhance end-user skill to levels commensurate with their DAP function, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R21: Acknowledged, and no comment.

Recommendation R22: The Audit Team recommends that Brampton develop and implement a regime for reoccurring knowledge-building of the Accela platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R22: Acknowledged, and no comment.

Recommendation R23: The Audit Team recommends that Brampton develop and implement a continuous improvement program for gathering known issues, prioritizing fixes, and implementing fixes on a regular basis, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R23: Management acknowledges the recommendation and notes that further staff resources will be required from IT to allow the prioritization to occur.

¹⁰ Refer to the Committee of Adjustment End-to-End Process Review, 2022. The Committee of Adjustment receives applications in hard copy and then transcribes that information into Accela for record-keeping. The workflows for minor variances and consents remain fully manual.

Recommendation R24: The Audit Team recommends, in conjunction with recommendations made elsewhere in this Audit, that Brampton increase its human resourcing support for its workflow platform by an estimated 1 FTEs of system administrators/super-users to achieve all the known fixes and the desired level of support for the platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Management Response to Recommendation R24: Acknowledged, and no comment.

4.6 Audit Objective #6, Functionality of Alternatives

Audit Objective 6: Determine whether there are go-forward functionality benefits available to the City associated with a transition to the cloud-based version of Accela, AMANDA, or other DAP workflow tools utilized by Ontario growth municipalities such as CityWorks PLL¹¹, CityView, or CloudPermit.

Criterion ID	Criteria: Current DAP Workflow Tool Offers Highest Functional Benefits for Brampton	Rationale for Criteria
6.1	<i>Having regard for the criteria from Audit Objective #1, #2B, and #2C, does a transition to Accela Cloud provide any greater functional benefits than On-Premises Accela?</i>	Since the original implementation of On-Premises Accela, the vendor has developed an updated online platform called Accela Cloud. This cloud based Accela solution features robust pre-built reporting capabilities using Microsoft Business Intelligence – the same report writer tool currently used by Brampton staff to build its own customized DAP reports/dashboards. In an Audit of On-Premises Accela, it becomes a necessity to consider the functionality merits of the cloud based Accela solution.

¹¹ PLL is an acronym for permits, licensing, and land management.

Criterion ID	Criteria: Current DAP Workflow Tool Offers Highest Functional Benefits for Brampton	Rationale for Criteria
6.2	<p><i>Having regard for the criteria from Audit Objective #1, #2B, and #2C, does a transition to AMANDA or other DAP workflow tools utilized by GTA municipalities such as CityWorks PLL, CityView, or CloudPermit provide any greater functional benefits than On-Premises Accela or Accela Cloud.</i></p>	<p>Typically, a single DAP workflow tool solution is deployed across both Planning/Engineering and Building DAP service channels in most Ontario/GTA growth municipalities; furthermore, there are various end-to-end workflow solutions available in the market beyond either Accela or AMANDA. This will determine whether there are net functionality benefits available to the City in relation to transitioning from the current Accela system to a potential alternative platform.</p> <p>(Note: This aligns with the goal of assessing the cost-effectiveness and value proposition of alternatives – see Objective #7.)</p>

4.6.1 Audit Objective 6 – Observations

DAP Workflow Tool Configuration/Functionality “Universal” Requirements

Ontario growth municipalities have a universal set of functionality requirements when it comes to the various commercially available DAP workflow tools on the market. These requirements apply to Accela On-Premises, Accela Cloud, or any of their competitor solutions. These requirements are outlined in the schematic diagram in **Figure 31**.

Core functionality includes the following:

- Version control and document management that ensures the most recent set of technical submission data/drawings/comments are always the set that multiple business units engaged in multiple review cycles of a given application are working with;
- Workflow/process milestones can be embedded (and subsequently adjusted) so that processing timeframes can be tracked as milestone achievement status changes are confirmed in the workflow module of the software;
- Workflow process milestones can be configured into a drawbridge format. Process milestone “A” must be confirmed as complete (via a status change in the workflow) before milestone “B” can be confirmed as complete. A drawbridge format ensures that proper workflow progress is properly tracked moving forward and because “chess clock”-style reporting of processing timeframes is dependent on accurate file status updates across all core milestones; and,

- Key performance indicator reporting must be achievable either within the workflow platform itself or via an analytics reporting tool that can bolt-on and draw from like workflow platform data sets refreshed in real-time (or daily).

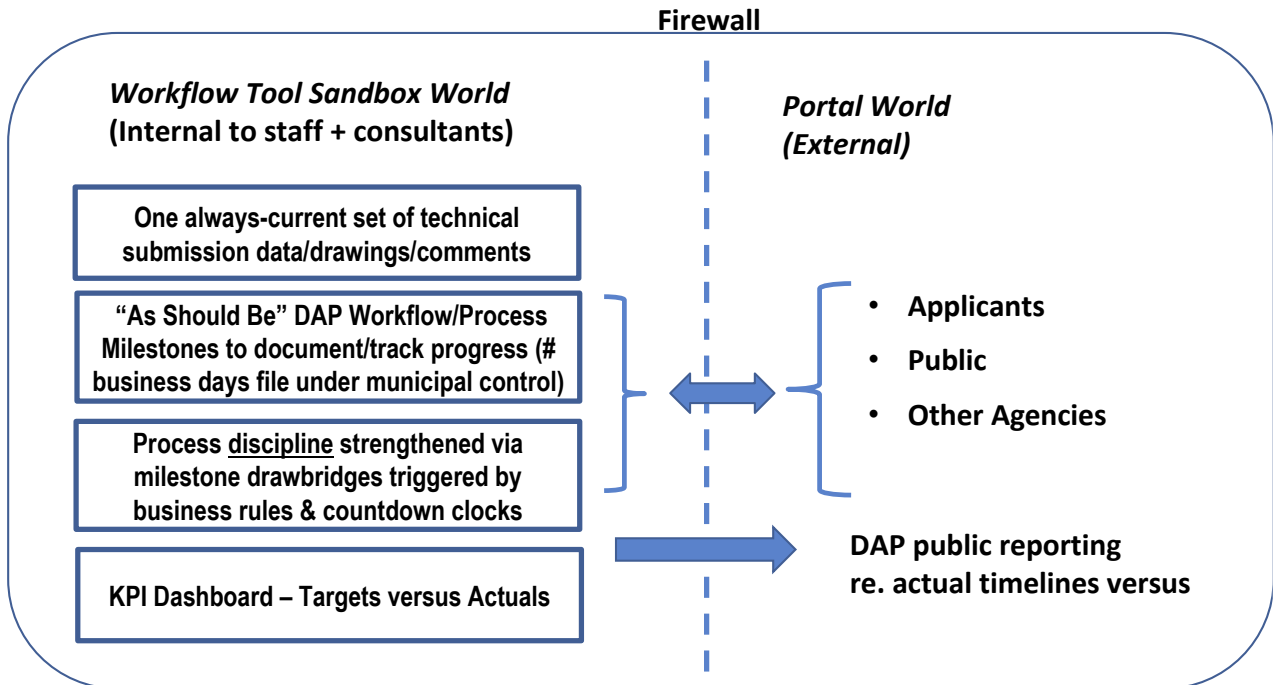


Figure 31: Evaluation of Accela Alternatives with the DAP Workflow Solution Marketplace

Readily Available Accela Alternatives

There are a number of modern, alternative DAP workflow solutions to Accela that have a presence in the Ontario municipal marketplace. **Table 4-4** below identifies three readily available Accela alternatives.

Table 4-4: Alternative DAP Workflow Platforms in Ontario

DAP Workflow Platforms	Cloud-based	Portal Integration	Canadian Municipal Deployments
CityView	Yes (also on premises)	Included in cloud-based version	Multiple large/growth municipal deployments in Ontario
CityWorks PLL (ESRI)	Yes (also on premises)	Included in cloud-based version	Frequent choice for large, growth intensive municipalities requiring strong GIS integration

DAP Workflow Platforms	Cloud-based	Portal Integration	Canadian Municipal Deployments
CloudPermit	Yes	Included in cloud-based version	Frequent choice for small to mid-size Ontario municipalities
Accela	Yes (also on premises)	Included in cloud-based version	Multiple large/growth municipal deployments in Ontario

The Audit Team has selected two potential Accela comparators for an evaluation of functionality/configuration. The Audit Team has undertaken multiple evaluations of these DAP workflow platforms in recent years, and as a result has developed a robust set of functionality/configuration criteria to inform this current evaluation. Evaluation criteria are set out below prior to evaluation scores being subsequently applied, as shown in **Table 4-5**.

Table 4-5: Workflow Software Criteria

No.	Functionality	Explanation	Priority
1	User Configurability	Local municipality IT support must be able to easily change process milestones, timeframe metrics and staff approval authorities internally.	Required
2	User Permission Setting	Local municipality IT support must be able to create users for internal staff and external agencies, with customizable permission settings.	Required
3	Integration with Land Parcel Information Systems (GIS)	DAP Workflow Tool must link all Planning and Building applications back to the originating land parcel/property owner/applicant.	Optional
4	Application Milestone Tracking/Current Status	Track the progress/current status of each/every DAP file against/across standardized milestones linked together in a mapped process (DAP is horizontal/linear).	Required
5	Application Milestone Measuring	Have the ability to count “controllable business days” for each file based on the “custody” of the file (municipal custody + applicant custody).	Required
6	System Wide Measurement (KPIs)	Ability to count “system-wide” units of work (e.g., number of pre-consults, number of complete applications, number technical review cycles, number of approved applications, other KPIs, etc.).	Required

4.0 Audit Observations and Findings: Objectives 1 to 6

No.	Functionality	Explanation	Priority
7	Timeframe Target Setting	DAP Workflow Tool must have the ability to set countdown clock performance timeframes for each milestone/application category.	Required
8	Timeframe Actuals Reporting	DAP Workflow Tool must be able to report actual timeframes vs. targets for each individual application and system-wide by application category.	Required
9	File Aging/Triaging	DAP Workflow Tool must be able to provide “real time” data on files approaching timeframe target deadlines.	Optional
10	Staff Prompting	DAP Workflow Tool must be able to prompt staff regarding file status, aging and file triage based on red, amber, green status or similar notification scheme.	Optional
11	Usable by all Business Units	DAP Workflow Tool must be accessible by all DAP staff in the municipality.	Required
12	Intuitive/Friendly User Interface	DAP Workflow Tool must be easy to understand, user-friendly and intuitive for both full-time users and occasional part-time users from external agencies/actors.	Required
13	Document Version Manager	Ability to keep a constant “working” version of all Submission documents/attachments/staff comments while providing access to previous versions. Documents stapled to specific milestones.	Required
14	Fee Calculation/Processing	Workflow Tool functionality should include calculation and payment confirmation of DAP fees and Development Charges (at point of application or later).	Optional
15	Training	Vendor capacity to provide training relevant to applicants, consultants, external agencies, and municipal staff.	Required
16	Cloud Based Service Delivery	To minimize internal support workload and support costs.	Required
17	Ease of Implementation/Deployment	“Out of the Box” in two months or less.	Required
18	East of Integration with Portal	Simple user interface for external users using web-based portal.	Required

Two appropriate DAP workflow comparator platforms have been confidentially evaluated as potential Accela replacements for purposes of this audit evaluation. **Figure 32** shows the 17 evaluation criteria already presented as well as the Audit Team’s evaluation scores (1 to 5 scale with 5 being the highest evaluation). The Audit Team scoring is informed by multiple real-time evaluations/demos of the platforms, as well as extensive configuration work (100+ hours) within one of them. It should be noted that the evaluation criteria in **Figure 32** are very similar to the functionality/configuration criteria utilized by the Audit Team when evaluating Accela according to other Audit Objectives.

DAP Workflow Functionality/Configuration Criteria + Evaluation					
#	Functionality:	Explanation:	Priority:	DAP Platform A Rating 1-5	DAP Platform B Rating 1-5
1	User Configurability	Municipal IT support must be able to easily change process milestones, timeframe metrics and staff approval authorities internally	Required	NA	NA
2	User Permission Setting	Municipal IT support must be able to create users for internal staff and external agencies, with customizable permission settings	Required	5	5
4	Integration with Land Parcel Information Systems (GIS)	DAP Workflow Tool must link all Planning and Building applications back to the originating land parcel/property owner/applicant	Required	5+	5
5	Application Milestone Tracking / Current Status	Track the progress / current status of each/every DAP file against/across standardized milestones linked together in a mapped process (DAP is horizontal/linear).	Required	5	5
6	Application Milestone Measuring (Chess Clock)	Have the ability to count "controllable business days" for each file based on the "custody" of the file (municipal custody + applicant custody)	Required	TBD	5
7	System Wide Measurement (KPIs)	Ability to count "system-wide" units of work (e.g. number of pre-consults, number of complete applications, number technical review cycles, number of approved applications, other KPIs etc)	Required	5	5
8	Timeframe Target Setting	DAP Workflow Tool must have the ability to set countdown clock performance timeframes for each milestone/application category	Required	Yes but not pre-configured	5
9	Timeframe Actuals Reporting	DAP Workflow Tool must be able to report actual timeframes vs targets for each individual application and system-wide by application category	Required	Yes but not pre-configured	5
10	File Aging/Triaging	DAP Workflow Tool must be able to provide "real time" data on files approaching timeframe target deadlines	Required	TBD	5
11	Staff Prompting	DAP Workflow Tool must be able to prompt staff regarding file status, aging and file triage based on red, amber, green status or similar notification scheme	Required	5	5
12	Usable by all Business Units	DAP Workflow Tool must be accessible by all DAP business units (including remotely)	Required	5	5
13	Intuitive/Friendly User Interface	DAP Workflow Tool must be easy to understand, user-friendly and intuitive for both full time users and occasional part-time users from external agencies/actors	Required	4	5+
14	Document Version Manager	Ability to keep a constant "working" version of all Submission documents/attachments/staff comments while providing access to previous versions. Documents stapled to specific milestones. Creates file audit / OLT capacity.	Required	5	5
15	Fee Calculation/Processing	Workflow Tool functionality should include calculation and payment confirmation of DAP fees and Development Charges (at point of application or later)	Optional	5+	5
16	Training	Vendor capacity to provide training relevant to applicants, consultants, external agencies and municipal staff	Required	5	5 but rigorous limits imposed
17	Multiple Workflow Tool Integration	Overall Workflow Tool solution able to integrate separate DAP tools supplied by different vendors (Integration examples include BLUEBEAM, GIS, ASYST and MPAC)	Optional	5+	5

Figure 32: Similarities of workflow tools

Both Accela alternatives feature comparable functionality/configurability relative to each other. Both would require bolt-on document management and analytics/reporting tools to maximize functionality and deliver on “universal” DAP workflow tool performance requirements set out above at the beginning of this section of the Report. Core workflow functionality to track processing timeframes is more than adequate in both Accela alternatives. Significant workflow customization to incorporate Brampton workflows already embedded in Accela On-Premises (and readily exportable to Accela Cloud) would be required. Reporting/analytics bolt-on upgrades would also require significant deployment of City staff effort to replicate Accela/Microsoft PowerBI reports and dashboards that have already been designed.

Furthermore, while preferences for user interface design choices may be subjective, many of the alternatives to Accela share similar design traits in their interface designs. **Figure 33** depicts an example of one such alternative.

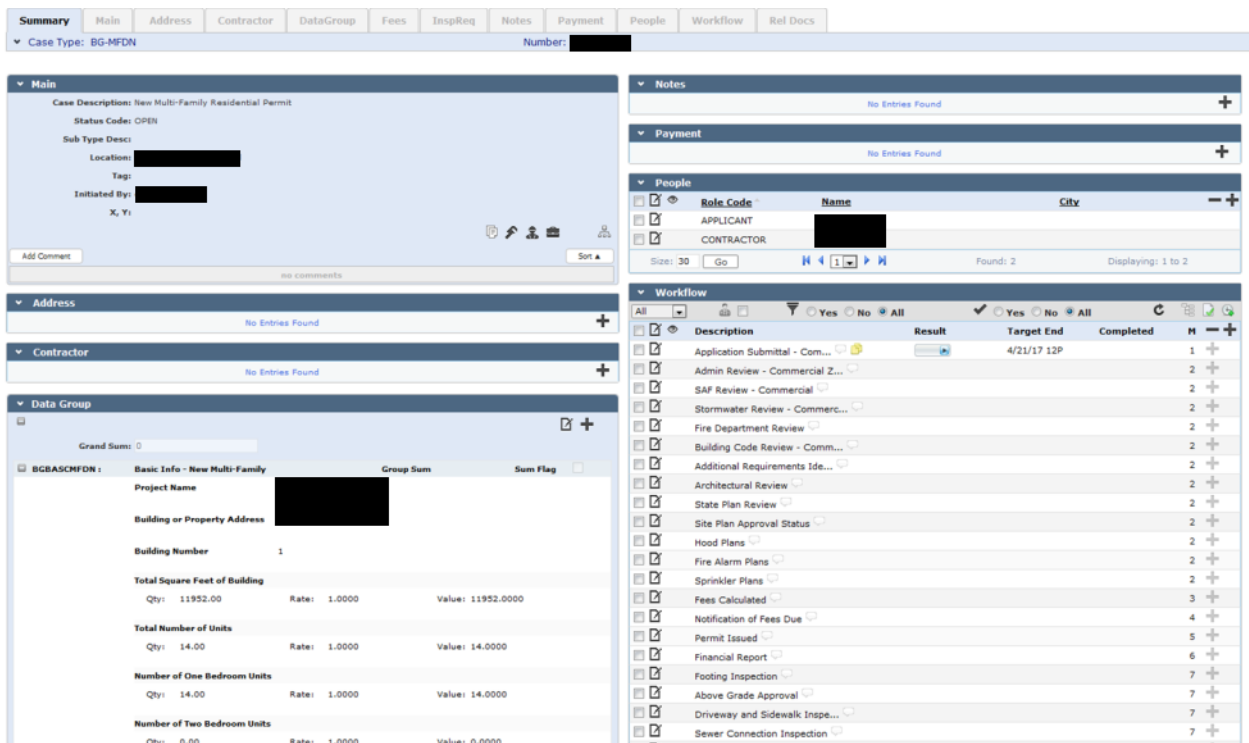


Figure 33: Example user interface typical of alternative software

The Net Present Value analysis in this Audit Report (see Objective 7) will quantify the costs associated with an Accela replacement scenario. The Audit Team has observed that the Accela alternatives we have evaluated have comparable, but not superior, in terms of functionality and configurability to Accela Cloud. Upgrades and improvements to the Accela platform identified in this Audit as essential to meeting Brampton’s DAP needs (e.g., document management solution or enhanced reporting module) would also be required for the two alternatives.

The Challenges of a Custom-Built Solution

Beyond the specialized DAP workflow platforms offered commercially, there are sophisticated generic workflow automation platforms that could be adapted/configured to function as substitute solutions for Accela or any other established DAP workflow tool. The Audit Team is familiar with one such platform – Microsoft Dynamics 365. Dynamics 365 is a cloud-based enterprise resource planning (ERP) platform that features robust workflow tool functionality.

Prior to COVID, Audit Team members were retained by a GTA growth municipality to execute a pilot project to adapt/configure Dynamics 365 to function as a DAP workflow tool. The pilot was scoped as a demonstration project focussed exclusively on Site Plan approvals – with the possibility to expand across the entirety of planning DAP application categories. The pilot successfully delivered workflow configurations, robust out-of-the-box reporting, and an effective front-end portal for application submissions. GIS integration capabilities were confirmed, as was Bluebeam document mark-up capabilities. This is where the successes ended for this pilot, since this “build a DAP model from scratch” approach using a robust generic workflow tool was extremely effort-intensive from a billable-hours workflow configuration perspective – it was executed in approximately 8 months, and that was for only one planning application category. It is also unclear whether document management functionality with version control would need to be bolted-on, as is the case with commercial DAP workflow tools. A multi-year runway would be required if Brampton pursued a custom-built solution which easily makes it less desirable than a commercially available Accela replacement.

The services of a hybrid IT/Management consulting firm development and implementation team would also be required to integrate DAP expertise with Dynamics 365 expertise. Clearly any custom-built solution would offer functionality/configurability that would likely match (and could potentially exceed) commercial DAP software solutions in the opinion of the Audit Team. What remains a concern and adds a much higher risk factor for Brampton is that a fulsome view of the costs is unknown for a Dynamics 365 “build from scratch” option given the absence of a full-implementation precedent (i.e., since no other high-growth municipality in Ontario has implemented a customized DAP solution using a tool such as Dynamics 365, it is difficult for Brampton to gauge costs, and if it proceeds down this path-of-the-unknown then the costs could spiral into significant sums of money and extensive amounts of time delay).

4.6.2 Audit Objective 6 – Findings and Recommendations

Accela retention/replacement decisions should not be based on any assumed or perceived functionality or configuration benefits of the commercially available DAP software platforms typically used in Ontario, and the Audit Team finds that there is no compelling functionality/configuration improvement “delta” that would justify replacing Accela with two other possible platforms. Instead, any recommendations to replace or not replace Accela will be guided by the NPV calculations which quantify relative costs. Relative cost differential to secure very similar levels of workflow tool performance will be the core

decision-point. Only a significantly lower NPV score for an Accela alternative will justify a shift to a replacement platform with the same/similar performance evaluation versus Accela using objective criteria.

As a result, the Audit Team has no direct recommendations arising from Objective #6.

5.0 Audit Observations and Findings: Objective 7

This section of the Audit Report describes the quantitative analysis that was necessitated by the Audit Plan as informed by preceding insight gained across the first six Audit Objectives.

5.1 Audit Objective #7, Net Present Value

Audit Objective 7: Determine the Net Present Value of alternatives to the current on-premises Accela platform in order to trigger a “switch” decision by Brampton.

Criterion ID	Criteria: On-Premises Accela Effectively Meets Cost/Benefit Threshold	Rationale for Criteria
7.1	<i>What is the Net Present Value “dividend” calculation for On-Premises Accela versus Accela Cloud, having regard for appropriate assumptions and a contingency allowance.</i>	Brampton must determine and verify the Net Present Value “dividend” required to trigger a switch decision by Brampton regarding the replacement of the current On-Premises Accela platform with Accela Cloud.
7.2	<i>What is the Net Present Value “dividend” calculation for On-Premises Accela versus AMANDA or other DAP workflow tools utilized by GTA municipalities (such as CityWorks PLL, CityView, or CloudPermit, etc.) having regard for appropriate assumptions and a contingency allowance.</i>	Brampton must determine and verify the Net Present Value “dividend” required to trigger a switch decision by Brampton regarding the replacement of the current On-Premises Accela platform with an alternative DAP workflow platform.

5.1.1 Construction of the Net Present Value Financial Analysis

The net present value (NPV) analysis is designed to inform this Audit’s underlying decision point: should Brampton retain the Accela platform and migrate to Accela Cloud when support for On-Premises Accela ends, or should Brampton migrate to an alternative DAP workflow solution? The following NPV analysis quantifies this decision by evaluating two distinct “keep” or “replace” scenarios.

The net present value (NPV) financial analysis was constructed using the following core elements:

1. **Implementation Costs**, which quantifies the estimated upfront costs associated with the following:
 - a. Software costs, if any fees needed to be paid upfront (as opposed to on an ongoing annual basis);
 - b. Hardware costs in relation to the various software suites being deployed (for both core IT infrastructure and end-user hardware);
 - c. Labour costs associated with the initial configuration, testing, implementation and training of staff in relation to the various software suites being deployed; and,
 - d. Other implementation costs, such as fees paid to third party vendors during the implementation phase.
2. **Ongoing Costs**, which quantifies the estimated ongoing annual costs associated with the following:
 - a. Software costs, where fees are paid on ongoing annual basis;
 - b. Hardware costs in relation to the various software suites being deployed (for both core IT infrastructure and end-user hardware);
 - c. Labour costs associated with ongoing training of staff and provision of support in relation to the various software suites being deployed; and,
 - d. Other ongoing costs, such as fees paid to third party vendors on an ongoing basis for ad-hoc technical services (e.g., development and testing) as needed.
3. **Potential Efficiencies**, which quantifies the number of re-deployable City staff effort (hours expressed as an estimated dollar value to factor into the NPV analysis) associated with the following:
 - a. Efficiencies from implementation of improvements to existing Accela software; and,
 - b. Efficiencies from improvements offered by the use of new substitute software.
4. **Phasing**, which defines the assumed timing of when, and the degree to which, each respective cost/benefit element is expected to be accrued, broken down on an annual basis.
5. **Cash Flow**, which brings all of the above elements together to calculate the resulting projected cash flow values on an annual basis for each year of the costing lifecycle.

The ultimate output of the financial analysis is a single calculated value – the “net present value” – which quantifies the present value of all financial inflows (in this case, cost savings or efficiencies) and expenditures set to occur over the lifecycle of the costing horizon.

In the context of this Audit, while the resulting NPV output is expressed as a dollar value, it can not be an accurate accounting of total project costs (since none of these costs have been incurred). Instead, for the purposes of this Audit, the NPV calculation allows for useful comparison between the two financial analysis scenarios which have different cost, benefit, and phasing-in characteristics. It must be emphasized that *no conclusion can be drawn from either of the NPV calculations on their own*; it is the comparison of the two results that provides the evidence for the Audit’s findings on this Audit Objective.

It is through this comparison of two results that the NPV analysis allows for a measure of whether one scenario implies the potential for greater financial returns than the other over their respective lifecycles.

5.1.2 Scenarios Used in Financial Analysis

Two scenarios were used for comparison in the financial analysis. Scenario 1 represents the approach of maintaining and improving the existing systems Brampton already has while also augmenting that core system with an add-on document management system.¹² Scenario 2 represents the approach of transitioning away from Brampton's existing systems and implementing an alternate DAP software solution, while also augmenting that new core system with an add-on document management system. These parameters are consistent with the earlier recommendations discussed in this Audit. The key parameters for the two scenarios are summarized as follows:

Scenario 1: Maintain and Improve Accela

- The existing Accela software platform is retained through all years of the costing lifecycle (initially in its current on-premises implementation, then transitioning to the cloud-based implementation);
- Brampton-specific improvements are made to the core functionality of the existing Accela software platform; and,
- The existing Accela platform is further augmented through integration of an add-on document management system.

Scenario 2: Alternate DAP Solution

- The existing Accela software platform is retained as-is from Year 1 to Year 3 of the costing lifecycle (in its current on-premises implementation);
- No Brampton-specific improvements are made to the core functionality of the existing Accela software platform;
- A new commercially available DAP software platform is implemented to replace the existing Accela software platform from Year 4 of the costing lifecycle and onwards; and,
- The new DAP software platform is further augmented through integration of an add-on document management system.

¹² It should be noted that the Audit Team was notified mid-stream during this Audit that the Vendor was discontinuing Accela on-premises and moving all customers to Accela Cloud. As a result, Scenario 1 by default becomes an option where Brampton retains Accela on-premises and then transitions to Accela Cloud; there is no scenario where Brampton can retain Accela on-premises over the long-term analysis lifecycle of this NPV.

5.1.3 Assumptions Used in Financial Analysis

The following core assumptions applied to the construction of both scenarios:

- The horizon of the costing lifecycle was set to 20 years, since a shorter lifecycle would *de facto* skew the results in favour of the existing system;
- All annual dollar-based calculations were adjusted for inflation starting in Year 1, using a rate of 3% per year;
- Labour costs involving City staff resources were calculated using an assumed average hourly rate of \$105 (based on inputs from the City with the Audit Team’s own adjustment for labour cost increases);
- All development effort relating to implementation of outstanding improvements (Scenario 1) and “software sprints” potentially required from the Vendor given their expertise with the new workflow software (Scenario 2) were carried as a professional services fee (i.e., not as labour costs of staff);
- The same add-on document management system would be implemented in both scenarios; and,
- The estimated value of potential efficiencies gained from improvements to existing software or using new software were calculated using Brampton’s planning application volumes for 2022 (and assuming those volumes as constant throughout the lifecycle of the analysis, for ease of comparison).

More specific details of the assumptions that went into the construction of each scenario are given in the following sections.

Implementation Costs

Table 5-1 details the assumptions used for estimating upfront implementation costs.

Table 5-1: Assumptions Regarding Implementation Costs

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Initial Software Costs	<ul style="list-style-type: none"> • No initial base fee for existing Accela software as fees are already paid on an annual basis • No initial base fee for add-on document management system; fees will be accounted for on an ongoing annual basis 	<ul style="list-style-type: none"> • No initial base fee for existing Accela software as fees are already paid on an annual basis • No initial base fee for new DAP software platform; fees will be accounted for on an ongoing annual basis • No initial base fee for add-on document management system; fees will be accounted for on an ongoing annual basis

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Initial Hardware Costs	<ul style="list-style-type: none"> • No initial investments needed in backend IT infrastructure for existing on-premises services or future cloud-based services • No initial investments needed in end-user hardware due to use of web-based software solutions 	<ul style="list-style-type: none"> • No initial investments needed in backend IT infrastructure for existing on-premises services or future cloud-based services • No initial investments needed in end-user hardware due to use of web-based software solutions
Initial Labour Costs	<ul style="list-style-type: none"> • Initial configuration, testing, implementation, and training effort associated with implementation of add-on document management system will require 25% of the staff effort involved in the original implementation of Accela • Initial labour costs will be expended as follows: <ul style="list-style-type: none"> ○ 100% of total costs in Year 1 	<ul style="list-style-type: none"> • Initial configuration, testing, implementation, and training effort associated with implementation of the new DAP software platform estimated at 150% of the staff effort involved in the original implementation of Accela • Initial configuration, testing, implementation, and training effort associated with implementation of add-on document management system estimated at 25% of the staff effort involved in the original implementation of Accela • Initial configuration, testing, implementation, and training effort will be expended as follows: <ul style="list-style-type: none"> ○ 40% of total costs in Year 1 ○ 40% of total costs in Year 2 ○ 20% of total costs in Year 3
Other Initial Implementation Costs	<ul style="list-style-type: none"> • Recommended improvements to the existing Accela software previously identified by KPMG and Dillon/Performance Concepts, respectively, will be implemented • Using an average cost approach recognizing that some fixes are quick and others will require greater effort, the total of all improvements was estimated to be \$240,000 • Initial implementation support costs will be expended as follows: <ul style="list-style-type: none"> ○ 50% of total costs in Year 1 ○ 50% of total costs in Year 2 	<ul style="list-style-type: none"> • No improvements will be made to existing Accela software¹³ • Development effort associated with troubleshooting/special customization of the new DAP software platform (“software sprints”) will be contracted out to third party vendors and estimated at \$100,000 • Initial implementation support costs will be expended as follows: <ul style="list-style-type: none"> ○ 40% of total costs in Year 1 ○ 40% of total costs in Year 2 ○ 20% of total costs in Year 3

¹³ On the premise that Brampton would not make significant investments on a software product that it was exiting, since this would not be a responsible use of public monies.

Ongoing Costs

Table 5-2 details the assumptions used for estimating ongoing annual costs.

Table 5-2: Assumptions regarding ongoing costs

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Ongoing Software Costs	<ul style="list-style-type: none"> • Annual costs for the existing Accela software were set equal to the actual amount paid for 2023 plus 10% to account for possible price escalation associated with the transition to the cloud-based version of Accela (\$258,500) • Annual costs for the add-on document management system were set using an assumed per-user fee of \$300 per year and a total user count equal to the number of licenses the City already owns for Accela (185) • Ongoing annual costs for the existing Accela software will be expended as follows: <ul style="list-style-type: none"> ○ 100% of annual costs in Year 1 and in every year thereafter • Ongoing annual costs for the add-on document management system software will be expended as follows: <ul style="list-style-type: none"> ○ 100% of annual costs in Year 1 and in every year thereafter 	<ul style="list-style-type: none"> • Annual costs for the existing Accela software were set equal to the actual amount paid for 2023 plus 10% to account for possible price escalation associated with the transition to the cloud-based version of Accela (\$258,500) • Annual costs for the new DAP software were set equal to the assumed annual cost of the existing Accela software (\$258,500)¹⁴ • Annual costs for the add-on document management system were set using an assumed per-user fee of \$300 per year and a total user count equal to the number of licenses the City already owns for Accela (185) • Ongoing annual costs for the existing Accela software will be expended as follows: <ul style="list-style-type: none"> ○ 100% of annual costs in Year 1 ○ 100% of annual costs in Year 2 ○ 100% of annual costs in Year 3 ○ 0% of annual costs in Year 4 and in every year thereafter (reflecting the transition to the new DAP software platform) • Ongoing annual costs for the new DAP software will be expended as follows: <ul style="list-style-type: none"> ○ 100% of annual costs in Year 1 and in every year thereafter • Ongoing annual costs for the add-on document management system software will be expended as follows: <ul style="list-style-type: none"> ○ 100% of annual costs in Year 1 and in every year thereafter

¹⁴ On the premise that the City would not pay more for an alternative software, given the similar functionality characteristics assessed in Objective 6.

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Ongoing Hardware Costs	<ul style="list-style-type: none"> No ongoing investments needed in backend IT infrastructure for existing on-premises services or future cloud-based services No ongoing investments needed in end-user hardware due to use of web-based software solutions 	<ul style="list-style-type: none"> No ongoing investments needed in backend IT infrastructure for existing on-premises services or future cloud-based services No ongoing investments needed in end-user hardware due to use of web-based software solutions
Ongoing Labour Costs	<ul style="list-style-type: none"> Ongoing annual training effort associated with implementation of add-on document management system will involve 2 hours of staff time per license per year Ongoing annual staff effort associated with supporting the existing Accela software and add-on document management system involves an additional 1.0 FTE of IT/superuser support staff per year Ongoing annual labour costs will be expended as follows: <ul style="list-style-type: none"> 100% of annual costs in Year 1 and in every year thereafter 	<ul style="list-style-type: none"> Ongoing annual training effort associated with implementation of the new DAP software suite and add-on document management system will involve 2 hours of staff time per license per year Ongoing annual staff effort associated with supporting the existing Accela software, and then the new DAP software and add-on document management system, will require an additional 1.0 FTE of IT/superuser support staff per year Ongoing annual labour costs will be expended as follows: <ul style="list-style-type: none"> 100% of annual costs in Year 1 and in every year thereafter
Other Ongoing Costs	<ul style="list-style-type: none"> Ongoing spending on third party vendor services on an ad-hoc basis (e.g., for special project rapid development and testing support) will be \$50,000 per year Ongoing annual third-party support costs will be expended as follows: <ul style="list-style-type: none"> 100% of annual costs in Year 1 and in every year thereafter 	<ul style="list-style-type: none"> Ongoing spending on third party vendor services on an ad-hoc basis (e.g., for special project rapid development and testing support) will be \$50,000 per year Ongoing annual third-party support costs will be expended as follows: <ul style="list-style-type: none"> 0% of annual costs for each of Years 1, 2, and 3 (reflecting the assumption that this spending will only be applied to the new software) 100% of annual costs in Year 4 and in every year thereafter

Potential Efficiencies

Table 5-3 details the assumptions used for estimating the value of City staff effort associated with potential efficiencies from implementation of improvements to existing software and those offered by the use of new software.

Table 5-3: Assumptions regarding potential efficiencies

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Potential efficiencies from improvements to existing software	<ul style="list-style-type: none"> • Implementation of previously recommended improvements to the existing Accela software will result in potential efficiencies equal to approximately \$420,000 of staff effort per year, based on assumed time savings associated with the removal of known inefficiencies¹⁵ and accounting for the assumed volume of planning applications processed on an annual basis • The value associated with potential efficiencies from improvements to existing software will accrue as follows: <ul style="list-style-type: none"> ○ 0% of annual efficiencies for each of Years 1 and 2 (reflecting the assumption that their implementation will occur in those years) ○ 100% of annual efficiencies in Year 3 and in every year thereafter (reflecting the assumption that they will be fully implemented by this point) 	<ul style="list-style-type: none"> • No improvements will be made to the existing Accela software platform while it remains in use

¹⁵ Refer to the Committee of Adjustment End-to-End Process Review and the End-to-End Development Application Review reports to see how the efficiencies of staff were translated into cost savings; regard for those analyses is given in this NPV analysis.

Element	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
<p>Potential efficiencies from improvements offered by new software</p>	<ul style="list-style-type: none"> • Implementation of the add-on document management system will result in potential efficiencies equal to approximately \$39,000 of staff effort per year, based on assumed time savings associated with the removal of known inefficiencies and accounting for the assumed volume of planning applications processed on an annual basis • The value associated with potential efficiencies from the use of the add-on document management system will accrue as follows: <ul style="list-style-type: none"> ○ 0% of annual efficiencies for each of Years 1 and 2 (reflecting the assumption that implementation will occur in those years) ○ 100% of annual efficiencies in Year 3 and in every year thereafter (reflecting the assumption that it will be fully implemented by this point) 	<ul style="list-style-type: none"> • The efficiencies associated with all of the improvements that would need to be made to the existing Accela software platform under Scenario 1 will be equally realized through the use of the new DAP software platform, resulting in potential efficiencies equal to approximately \$420,000 of staff effort per year • Implementation of the add-on document management system will result in potential efficiencies equal to approximately \$39,000 of staff effort per year • The value associated with potential efficiencies from the use of new DAP software and the add-on document management system will accrue as follows: <ul style="list-style-type: none"> ○ 0% of annual efficiencies for each of Years 1, 2 and 3 (reflecting the assumption that its implementation will occur in those years) ○ 100% of annual efficiencies in Year 4 and in every year thereafter (reflecting the assumption that it will be fully implemented by this point)

5.1.4 Audit Objective 7 – Observations

The results of the net present value financial analysis can be summarized using the following key financial measures:

- **Total net operating income**, which represents the overall financial position before accounting for upfront costs;
- **Total upfront costs**, which represents most of the expected expenditure involved in the implementation phase; and,
- **Net present value**, which represents the overall financial value of the project after accounting for expected returns.

The resulting key financial measures which can be used to compare Scenario 1 and Scenario 2 are listed in **Table 5-4**. According to the results of the analysis, Scenario 2 represents substantially less value than Scenario 1 on the basis of net present value.

Table 5-4: Summary of key financial measures from net present value analysis

Financial Measure	Scenario 1 Maintain and Improve Accela	Scenario 2 Alternate DAP Solution
Total net "operating income" (\$)	-\$7,957,716	-\$10,111,985
Total upfront costs (\$)	\$663,111	\$2,835,431
Net present value (\$) calculated as income subtract costs	-\$8,620,827	-\$12,947,416

5.1.5 Audit Objective 7 – Findings

The intent of Audit Objective 7 is to determine the NPV of alternatives to the current on-premises Accela software platform in order to inform a decision to keep Accela to switch to another DAP technology investment.

The Audit Team finds that, based on the assumptions noted previously, the results of the financial analysis indicate that Scenario 2 (Alternate DAP Solution) represents substantially less value for money than Scenario 1 based on their net present values, in the order of approximately \$4.3 million dollars. Given that this is specifically a Value-for-Money Audit, **the results of the NPV analysis do not justify a switch decision to an alternative platform** and that **Scenario 1 (Maintain and Improve Accela) is better value for money.**

5.1.6 Audit Objective 7 – Recommendations

Recommendation R25: The Audit Team recommends that Brampton maintain and improve Accela (On-Premises transitioning to Cloud) given its better value for money as assessed through this Audit.

Management Response to Recommendation R25: Management has acknowledged the recommendation and remains interested in exploring potential benefits associated with alternative software to confirm that they do not have added benefits over Accela (e.g., intuitive user experience). Management is also interested in further understanding that cost efficiencies are the only applicable consideration due to all other matters being equal.

Recommendation R26: The Audit Team recommends that Brampton prioritize investments in improving and augmenting the Accela workflow platform (including associated staffing resources) to gain optimal DAP efficiencies.

Management Response to Recommendation R26: Management has acknowledged the recommendation and remains interested in exploring potential benefits associated with alternative software to confirm that they do not have added benefits over Accela (e.g., intuitive user experience). Management is also interested in further understanding that cost efficiencies are the only applicable consideration due to all other matters being equal.

6.0 All Audit Recommendations and Conclusion

6.1 Recommendations

The following lists the recommendations provided in this Audit.

Recommendation R1: The Audit Team recommends that Brampton make no further investment in any new reporting tools, given that it has Microsoft Power BI to meet its business intelligence and analytics needs.

Recommendation R2: The Audit Team recommends that Brampton prioritize the build-out of the required reporting, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R3: The Audit Team recommends that Brampton train its staff to update file processing status on a same-day basis for Bill 109 risk-exposed file categories (Site Plans and OPA/ZBA files) that are an urgent and immediate priority.

Recommendation R4: The Audit Team recommends that Brampton’s DAP workflow be updated to achieve integration of post-Draft Plan “Engineering DAP” phases.

Recommendation R5: The Audit Team recommends that Brampton investigate, and deploy if feasible, a portal that facilitates input to Brampton’s workflow platform by the post-Peel Region water/wastewater agency staff as commenters/approvers of major infrastructure.

Recommendation R6: The Audit Team recommends that Brampton close the Post-Draft Plan Engineering DAP workflow gap to avoid falling behind on its workflow deployment.

Recommendation R7: The Audit Team recommends that Brampton achieve 100% compliance with time tracking and closure of workflow steps through further direction and training of staff.

Recommendation R8: The Audit Team recommends that Brampton improve its deployment of spatial data to achieve better functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R9: The Audit Team recommends that Brampton implement appropriate automated e-mail notifications to improve communication and workflow.

Recommendation R10: The Audit Team recommends that Brampton invest in a document management solution compatible with Accela Cloud (or an alternative platform) to achieve the desired functionality, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R11: The Audit Team recommends that Brampton configure the GIS map to show related records geospatially (e.g., Draft Plan of Subdivision and Final approvals) and enhance the user interface for improved functionality.

Recommendation R12: The Audit Team recommends that Brampton explore the ability to improve the global search function (separately from a document management solution) and, regardless of its ability to improve the search, provide a tool tip alongside the search to improve the end user expectations/experience.

Recommendation R13: The Audit Team recommends that Brampton update the code behind the pages that display commenting in Accela so that character limits and/or text wrapping issues are resolved.

Recommendation R14: The Audit Team recommends that Brampton update the code behind the pages for the comment box and the conditions box, to better ensure that staff comments are entered into the correct field, and provide appropriate training on this.

Recommendation R15: The Audit Team recommends that Brampton sustain a working group with its Accela peer municipalities to share knowledge from time-to-time on configuration, improvements, tools, practices, and end-user needs.

Recommendation R16: The Audit Team recommends that Brampton provide further direction to staff on the necessity of updating status in the workflow(s).

Recommendation R17: The Audit Team recommends that Brampton conduct spot-checks from time-to-time to assist with identifying staff that may need additional training/coaching on their workflow environment.

Recommendation R18: The Audit Team recommends that Brampton implement a workflow update that better tracks development engineering’s collaborative approach with applicants that will provide better continuity for the overall workflow.

Recommendation R19: The Audit Team recommends that Brampton resolve the configuration that causes the “Review Distribution/Development Engineering Review” task to be labelled with a cryptic “Note” and correct this label to be understandable.

Recommendation R20: The Audit Team recommends that Brampton utilize a “drawbridge” workflow configuration to require staff to close/update file status before being able to progress to completion of subsequent processing milestones.

Recommendation R21: The Audit Team recommends that Brampton design a formal training regime for its workflow platform end-users, benchmark user skills, and then implement appropriate training to

enhance end-user skill to levels commensurate with their DAP function, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R22: The Audit Team recommends that Brampton develop and implement a regime for reoccurring knowledge-building of the Accela platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R23: The Audit Team recommends that Brampton develop and implement a continuous improvement program for gathering known issues, prioritizing fixes, and implementing fixes on a regular basis, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R24: The Audit Team recommends, in conjunction with recommendations made elsewhere in this Audit, that Brampton increase its human resourcing support for its workflow platform by an estimated 1 FTEs of system administrators/super-users to achieve all the known fixes and the desired level of support for the platform, and account for this in the Audit’s cost-benefit analysis of an alternative workflow platform.

Recommendation R25: The Audit Team recommends that Brampton maintain and improve Accela (On-Premises transitioning to Cloud) given its better value for money as assessed through this Audit.

Recommendation R26: The Audit Team recommends that Brampton prioritize investments in improving and augmenting the Accela workflow platform (including associated staffing resources) to gain optimal DAP efficiencies.

6.2 Conclusions

Through the course of this Audit, the Audit Team’s investigation has determined that while Brampton may have procured Accela quickly because of the imminent end to Plan Track, it has a DAP workflow software platform that meets the functional needs to deliver a high performance development approvals regime. The Audit Team has found few actual drawbacks with the Accela workflow tool itself, and has found key challenges with training/skills, end-user behaviour, configuration, and easily resolved “fixes” that need to be made – underscored by the fact that many of the complaints from Brampton staff about Accela do not exist or have been resolved at the peer municipalities with which we consulted.

As a value-for-money Audit, the Audit Team’s net present value (NPV) analysis has demonstrated that switching to another software platform does not provide greater value to Brampton; therefore, the Audit Team’s recommendation is that Brampton maintain and improve Accela. The other recommendations in the Audit Report can help Brampton achieve greater optimization of Accela, which will have a positive return on staff productivity/efficiency, and in turn, help Brampton fast-track development on the way to meeting its housing pledge.