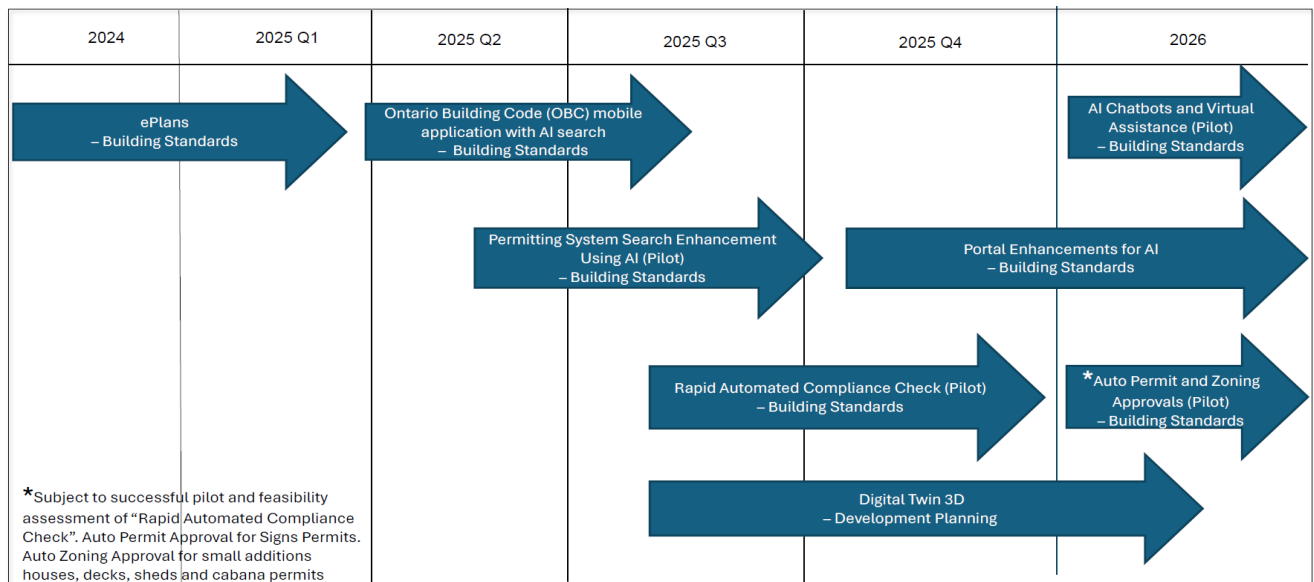


Attachment 3: Planning, Growth Management and Housing Delivery 2025-2026 Technology Roadmap

The City of Vaughan has implemented key technology platforms, which will enable the integration of advanced AI solutions to streamline services and enhance the planning approvals processes.

The City of Vaughan Planning, Growth Management and Housing Delivery 2025-2026 Planned Technology Initiatives Roadmap includes AI capabilities used at various stages of the planning and building approvals process.

Planning, Growth Management & Housing Delivery 2025-2026 Planned Technology Initiatives Roadmap



Initiative	Description	Benefit	Year of Implementation
ePlans – Building Standards (Rule based system)	Advanced automation will enhance the efficiency of permit intake and plan review, leading to expedited approvals. Seamless integration with existing Citizen Permitting Portal	<ul style="list-style-type: none"> Faster approval times, transparency, consistency (uniform responses), enhanced efficiencies 	2025 (Q1)
Ontario Building Code (OBC) mobile	Replace the Building Standards department's use of the paper-based Ontario Building Code	<ul style="list-style-type: none"> Will make the search, navigation, copying, and comparison of the 	2025

<p>application with AI search – Building Standards</p> <p>(Natural Language Processing AI)</p>	<p>More efficient and effective search, navigation, copying, and comparison of the Ontario Building Code material faster</p>	<p>Ontario Building Code material faster, more efficient, and more effective</p> <ul style="list-style-type: none"> Enhanced efficiencies, accuracy and accessibility to the digital version of the Ontario Building Code while reducing paper usage. 	
<p>Permitting system search enhancement using AI (Pilot) – Building Standards</p> <p>(Natural Language Processing AI)</p>	<p>AI-powered search capabilities to convert natural language queries into complex data searches, facilitating more efficient navigation of the system.</p>	<ul style="list-style-type: none"> Enhanced productivity by automating and streamlining the system searches and navigation 	<p>2025</p>
<p>Rapid Automated Compliance Check (Pilot) – Building Standards</p> <p>Various types of AI including:</p> <p>(Generative (Gen) AI Machine Learning (ML) AI Natural Language Processing AI Rule-based system)</p>	<p>AI-automated Zoning Compliance Checking for Citizen drawing submissions.</p>	<ul style="list-style-type: none"> The solution can provide instant feedback on compliance, which can result in higher quality drawing submissions prior to applicants submitting their building permit applications This improvement may lead to fewer resubmissions during the plan review process and potentially faster approval times 	<p>2025</p>

<p>Digital Twin 3D – Development Planning</p> <p>(Rule-based system)</p>	<p>The Development planning department implemented a 3D platform to visualize high and mid-rise development applications. With this new platform staff have access to 3D perspective of development submissions and benefit from having a better understanding how these applications work together with other development in proximity and in the neighbourhood, including the implications of land use policies such as Zoning and Official Plans.</p> <p>Digital twins are virtual replicas of physical entities, enabling real-time simulation and analysis. They help planners assess development proposals through a dynamic, holistic view of city systems, integrating real-time data from sensors and historical records for an up-to-date representation of urban environments.</p>	<ul style="list-style-type: none"> • Better understanding how proposed mid- and high-rise developments integrate with the existing built form in a 3D web-based platform. • Improved product design, enhanced safety and risk management, improved long-term planning and citizen engagement opportunities 	<p>Pilot – Implemented 2024</p> <p>Go-Live – Planned 2026</p>
<p>Portal Enhancements for AI – Building Standards</p>	<p>Migrate the Online Citizen Portals for several among 6 departments, including digital application submissions into a single portal (repository) for comprehensive access.</p>	<ul style="list-style-type: none"> • Achieve service excellence and will provide the foundation for future AI implementations, such as AI Chatbots and advanced AI search functions. • Convenient, transparent, improved communication 	<p>2025 - 2026</p>

		and user-friendly experience.	
<p>Auto Permit and Zoning Approvals (Pilot) – Building Standards</p>	<p>Subject to a successful pilot and feasibility assessment of the “Rapid Automated Compliance Check” solution, the “Auto Permit Approval” solution will be developed for Sign building permits to automatically review for compliance and approve permits.</p> <p>This solution automates zoning compliance reviews for small additions to houses, decks, sheds, cabanas, and sign permits. This solution can provide "same day" turnaround on the zoning review for several permit types and full review for Sign permits. This allows staff to focus on more complex development applications leaving opportunity to repurpose staff time to focus on review of more complex development applications.</p> <p>Additionally, the solution may be expanded to other permit types based on its success factors.</p>	<ul style="list-style-type: none"> • Enhanced efficiencies, faster approval times, and resource optimization by freeing up staff time to focus on complex tasks and developments. 	<p>2026</p>
<p>AI Chatbots and Virtual Assistance (Pilot) – Building Standards</p>	<p>Address inquiries about permit applications, the city’s Zoning Bylaws and other information relevant to applicants to help reduce the volume of inquiries handled by frontline staff.</p>	<ul style="list-style-type: none"> • Improved efficiency and convenience to access information. • Frees up staff time to focus on complex tasks, while providing transparency (enhances clarity), 	<p>2026</p>

		and understanding of Building Standards materials)	
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