

# A Report for the City of Charlotte & Mecklenburg County

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## Business Process Analysis Review of OnSchedule

Prepared for:  
City of Charlotte  
Mecklenburg County



**GARTNER CONSULTING**

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## Introduction

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- As part of the initial draft of the Future State Service Delivery Model, Gartner identified a strategic recommendation to eliminate OnSchedule in favor of an exclusively First-In, First-Out approach, which stated the following:
  - “Eliminate the County’s OnSchedule plan review process, which is an appointment-based plan review scheduling system, and have both the City and the County operate on a First-In, First-Out (FIFO) plan review process that is associated with realistic, predictable performance metrics to reduce inconsistencies and improve the plan review process.”
- During the workshop held on February 5th to review the Model with City and County stakeholders, Gartner was asked to consider an alternative, hybrid approach option where some project types could operate on a FIFO approach, while others, determined by clear criteria (e.g., project type, size, complexity, etc.) of which customers are familiar, are routed through OnSchedule.
- Subsequently, during a meeting on February 22nd to review feedback on the Model, the City and the County requested that Gartner perform the proposed business process analysis (rather than a City/County led evaluation) of the plan review options, and to make a final recommendation.
- This document provides Gartner’s analysis and recommendation after further assessing the two options:
  - Option 1: The City and the County both transition to a FIFO approach for all project types.
  - Option 2: Some project types operate on a FIFO approach, while others operate on an appointment based (e.g., OnSchedule) approach.

# Executive Summary

## Customer Perspective

- Opinions of the plan review process vary depending on the type of customer. Many customers, though, agree that:
  - The plan review process and requirements are not clear and often inconsistent, resulting in confusion.
  - The criteria for the type of County plan review (CTAC vs OnSchedule) are not clear or transparent.
  - The customer experience to navigate the plan review process for the County is different than that of the City.
- The cycle time for the City's plan review City is consistent and predictable. Most customers can expect a plan review to be completed within 15-20 business days.
- The overall cycle time for the County's plan review can vary as the size of the backlog fluctuates. Once scheduled, though, plan review is usually completed on time.
  - While the OnSchedule plan review may not be expedient from submission to approval, some customers do appreciate the predictability of the reviews once scheduled.



OnSchedule seems to be that it would be a quicker turnaround, but the schedule date is 30-40 days out from the initial request for the OnSchedule date



It is not consistent. It is not user friendly. Whether I do residential, CTAC, OnSchedule – my interface with the city, as far as uploading things, are three completely different things.”



It is a very unofficial process that we are not included in, and it is very awkward, and the customer does not understand it either. We have to ask “is it in CTAC or OnSchedule?”



For the most part I have been doing OnSchedule, and it has been pretty quick. Been doing it about a month.”



OnSchedule is pretty good. Kinks mostly out.



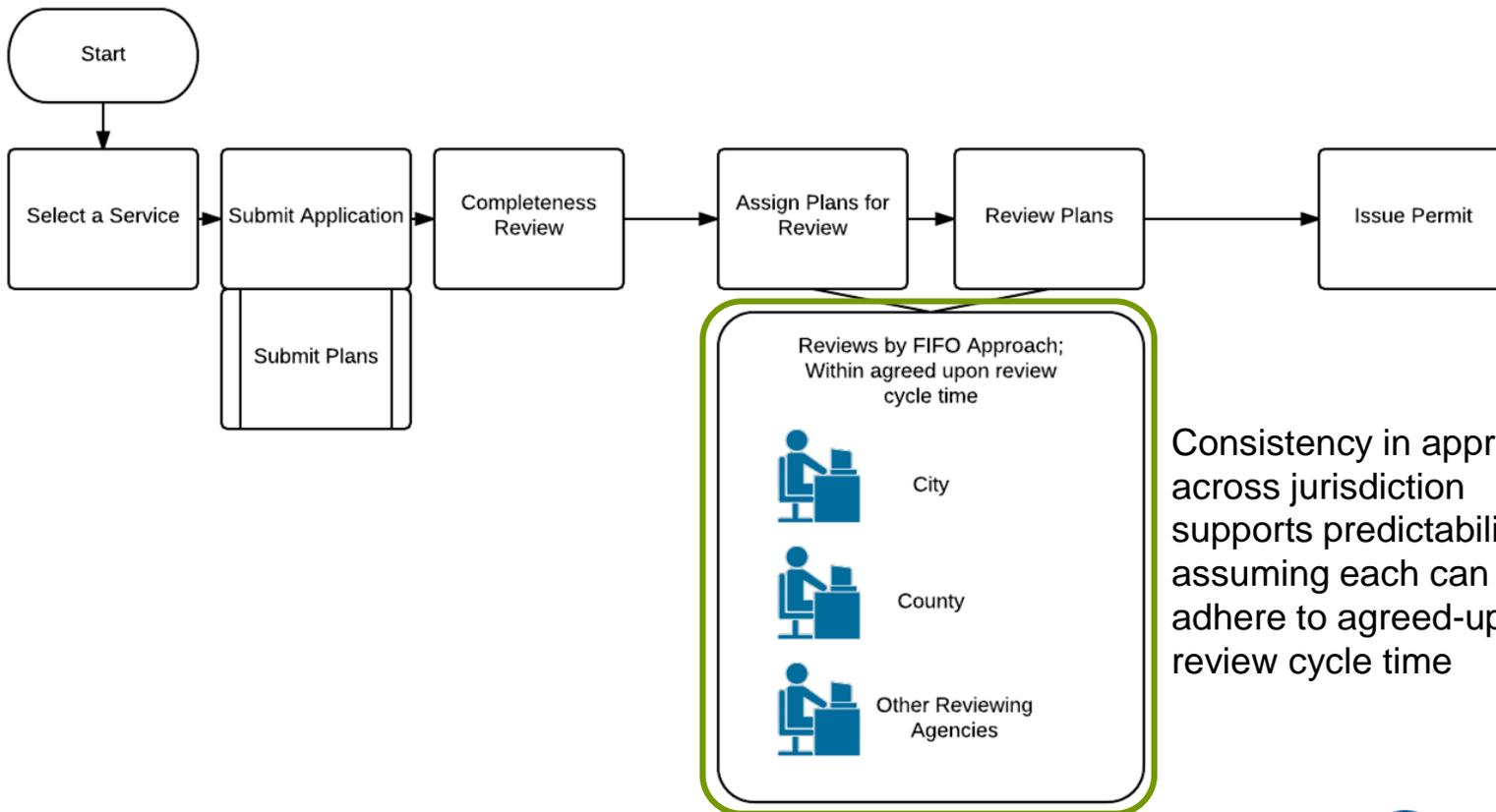
I do like that with CTAC, I can get the drawings without having coming down here. I enjoy coming down here and talking with the ladies, but I have other things that I need to be doing. It makes it easier and quicker. I really do like that. I wish it could be done with the larger projects, the OnSchedule projects.

# Option 1

## Adopt a First-In, First-Out (FIFO) Plan Review Approach

Transition to a First-In, First-Out (FIFO) plan review approach for both the City and the County that is associated with realistic, predictable performance metrics to reduce inconsistencies and streamline the plan review process.

The flow below describes, at a high level, the customer's process using a FIFO plan review approach across the County and the City



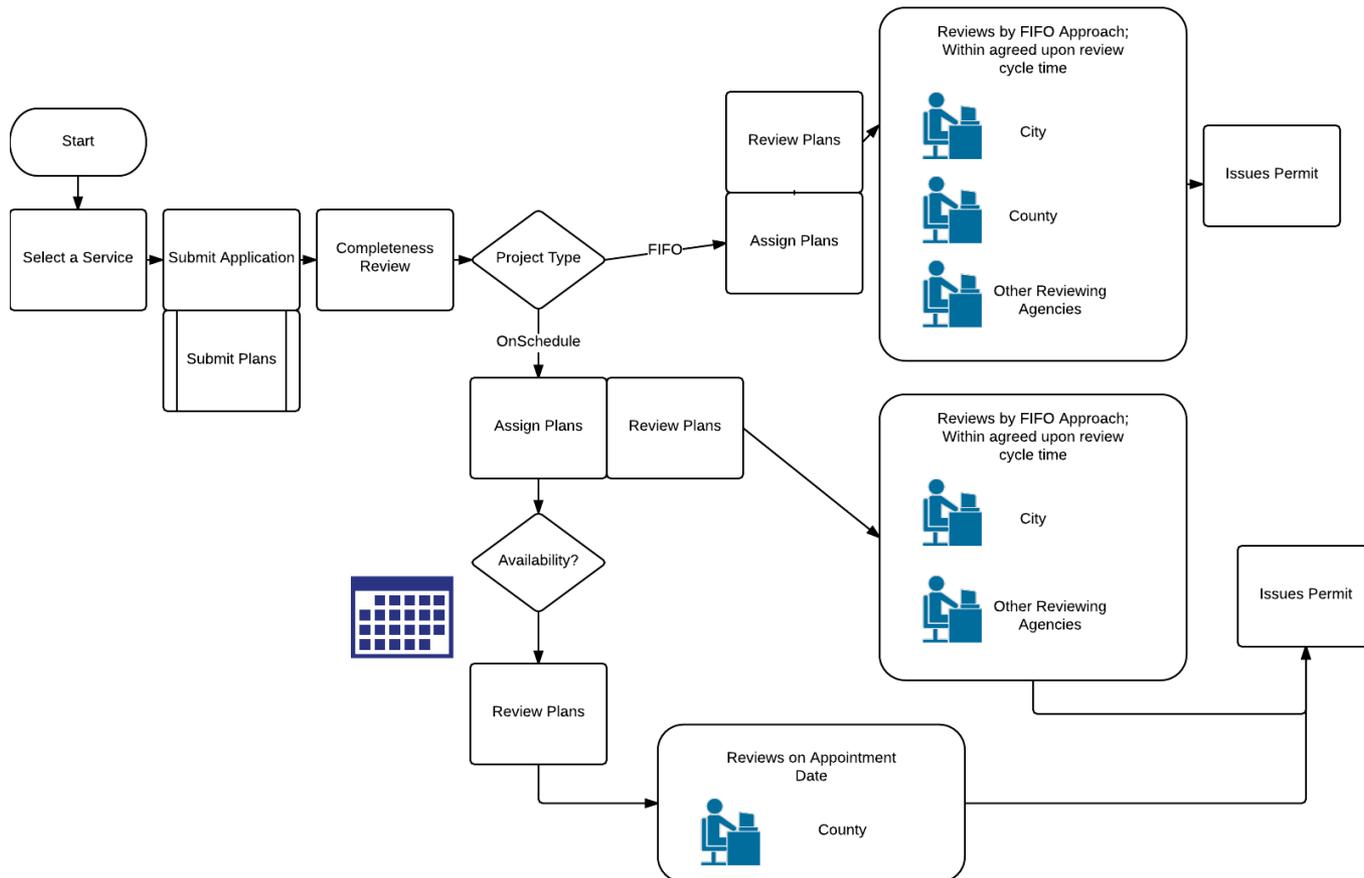
Consistency in approach across jurisdiction supports predictability, assuming each can adhere to agreed-upon review cycle time

# Option 2

## Adopt a Hybrid Plan-Review Approach (FIFO & OnSchedule)

Use FIFO as a default plan-review approach and leverage OnSchedule for select project types.

The flow below describes, at a high level, the customer's process using a hybrid plan review approach across the County and the City.



## Alternative Analysis

Objective Evaluation Criteria to determine recommendation for

Gartner identified a set of evaluation criteria used to assess the two Plan-Review options

Evaluation Criteria	Description
<b>Supports Future State Service Delivery Model Standards for Plan Review</b>	<ul style="list-style-type: none"> <li>▪ Can the option allow the City and the County to meet the identified points of performance identified for plan review in the Future State Service Delivery Model?               <ul style="list-style-type: none"> <li>▪ Predictable performance metrics</li> <li>▪ Reduce inconsistencies</li> <li>▪ Enable electronic, concurrent, and transparent plan review</li> </ul> </li> </ul>
<b>Limits Technical Solution Complexity</b>	<ul style="list-style-type: none"> <li>▪ Is the technology needed to implement the option particularly complex?</li> <li>▪ Is the option an industry best practice, supported through Out of the Box functionality for most licensing and permitting applications (e.g., can likely be accomplished through configuration vs. customization)?</li> </ul>
<b>Meets Future State Service Delivery Model Guiding Principles</b>	<ul style="list-style-type: none"> <li>▪ Does the option meet the guiding principles for using the service model agreed upon by the City and the County?               <ul style="list-style-type: none"> <li>▪ Customer Service Oriented</li> <li>▪ Standardized</li> <li>▪ Simple</li> <li>▪ Transparent</li> <li>▪ Living?</li> </ul> </li> </ul>
<b>Reduces Implementation Risk</b>	<ul style="list-style-type: none"> <li>▪ Option reduces risks related to implementation (e.g., cost and time to implement, customer resistance)</li> <li>▪ Option resolves current state issues</li> <li>▪ Option addresses customer needs/concerns</li> </ul>

## Evaluation Criteria 1

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### Supports Future State Service Delivery Model Standards for Plan Review

#### Option 1: FIFO

- A FIFO plan review approach would support all characteristics of plan review identified in the Future State Service Delivery Model:
  - Predictable performance metrics
  - Reduce inconsistencies in customer experience
  - Enable electronic, concurrent, and transparent plan review

#### Option 2: Hybrid

- Plan reviews may not be able to run concurrently unless the City and other reviewing agencies followed the County's appointment schedule.
- Although the Customer receives a plan review date for each submission that identifies the predicted date for that submission, the County's available appointment windows and backlog change over time (e.g., unpredictable from submission to submission).

## Evaluation Criteria 2

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### Limits Technical Solution Complexity

#### Option 1: FIFO

- Between the two options, a consistent FIFO approach across the enterprise would result in less complexity to implement a technical solution.
  - Most vendors in the market offer FIFO functionality “out of the box”
  - A consistent approach would simplify configuration

#### Option 2: Hybrid

- Based on our understanding of the technology platforms in the market, a hybrid plan-review approach can be developed, but the technical solution would be more complex.
  - The ability to manage plan-reviews using FIFO while simultaneously scheduling plan reviews for specific project types is not currently available in a single platform.
  - The existing technical solution used by the County to perform OnSchedule could most likely be leveraged in the future to provide the functionality desired.

## Evaluation Criteria 3

### Meets Future State Service Delivery Model Guiding Principles

#### Option 1: FIFO

- *Customer Customer Service Oriented* – Plan review cycle begins when the Customer is ready to submit vs. County's workload and availability
- *Standardized* – A consistent FIFO approach would be the standard approach across the enterprise
- *Simple* – All plan reviewers operate within a defined plan review cycle time
- *Transparent* – Over time, expectations for review cycle time will be established and known.

#### Option 2: Hybrid

- *Customer Service Oriented* - OnSchedule primarily meets the County's need for workload management, rather than providing a plan review cycle time based on Customer readiness for submission. A backlog exists and fluctuates, resulting in inconsistent cycle times for plan review. While cycle times are not consistent, some customers appreciate that, once scheduled, the County plan reviews are conducted on time, which offers the predictability necessary to plan accordingly.
- *Simple* – Providing two options for plan review may be confusing to Customers as to which option their project qualifies for.
- *Transparent* – Unless the County provides insight into available appointment windows and backlog in real-time, the scheduling process is not transparent.

## Evaluation Criteria 4

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### Reduces Implementation Risk

#### Option 1: FIFO

- Transitioning to a FIFO approach would be a very large organizational change management effort for the County, as well as Customers who are used to the OnSchedule Process.
- Transitioning to an exclusively FIFO approach would resolve the current state issues identified for plan review.
- To implement an exclusive FIFO approach, the County would likely need to hire additional staff to support reducing the current backlog of OnSchedule plan reviews and to maintain a consistent cycle time for plan review once fully transition. If staffing costs are passed through to customers in the form of fees, customers may be resistant, especially since the transition to FIFO would require some time to stabilize.

#### Option 2: Hybrid

- Keeping OnSchedule in place would minimize organizational change management activities for the County, reducing implementation risk.
- Keeping OnSchedule in place, even if the project types eligible for OnSchedule are limited, would not resolve the current state issues identified for plan review.

# Alternatives Analysis

## Evaluation of Plan Review Approach Options

Evaluation Criteria	Option 1 – FIFO	Option 2 – Hybrid: FIFO / OnSchedule
<b>Meets Future State Service Delivery Model Standards for Plan Review</b> <ul style="list-style-type: none"> <li>Option allows the City and the County to meet the identified points of performance identified for plan review?</li> </ul>		
<b>Technical Solution Complexity</b> <ul style="list-style-type: none"> <li>Is the technology needed to implement the option particularly complex?</li> <li>Option is supported through Out of the Box functionality for most licensing and permitting applications</li> </ul>	 	 
<b>Meets Future State Service Delivery Model Guiding Principles</b> <ul style="list-style-type: none"> <li>Does the option meet the guiding principles for using the service model (Customer Service Oriented, Standardized, Simple, Transparent, Living)</li> </ul>		
<b>Reduces Implementation Risk</b> <ul style="list-style-type: none"> <li>Option reduces risks related to implementation (Organizational Change Impact)</li> <li>Option resolves current state issues</li> <li>Option addresses customer needs/concerns</li> </ul>	  	  

<b>Legend</b>  Does not satisfy evaluation criterion	 Marginally satisfies evaluation criterion	 Adequately satisfies evaluation criterion	 Greatly satisfies evaluation criterion	 Fully satisfies evaluation criterion
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# Alternatives Analysis

## Recommendation for Plan Review Approach

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Based on our assessment, Gartner recommends a transition to a FIFO plan review approach for both the City and the County, with consideration given to an alternative if the resources required to achieve enterprise FIFO cannot be secured.

### Considerations

- Many jurisdictions, as a best practice, offer premium options to customers who require expedited reviews. The Future State Service Delivery Model accommodates this best practice via proposed 5-day, 1-day or same-day expedited plan-review services. OnSchedule does not provide an expedited, premium service, but rather some predictability for the customer.
- With appropriate staffing to handle the workload, service predictability can be achieved with a FIFO plan-review approach. However, Gartner understands that in order to support such an approach, the County may need additional experienced staff, which would likely require increased fees for customers. A transition to this approach poses several challenges:
  - Finding and hiring experienced staff may not be easy.
  - Establishing predictability will take time and can result in customer dissatisfaction in the meantime.
  - Additional fees, especially if timelines are inconsistent, may result in customer backlash

### Alternative

- If gaining buy-in and securing the necessary human and financial resources required to implement the FIFO approach is not feasible, a hybrid approach that combines FIFO with an appointment-based approach for specific project types should be implemented.
- Consider identifying clear criteria (e.g., project type, size, complexity, etc.) for appointment-based plan review and communicating to customers to ensure expectations are managed.
- The hybrid approach, though, presents its own challenges, as described in earlier slides, including complexity in technology implementation, and inconsistent customer experience, multiple touch points for OnSchedule projects and extended overall turnaround times for plan review.

## Other Jurisdictions that Use FIFO

Jurisdiction	Reference
Clackmas County, OR	<a href="http://www.clackamas.us/building/process.html">http://www.clackamas.us/building/process.html</a>
Portland, OR	<a href="https://www.portlandoregon.gov/bds/article/411357">https://www.portlandoregon.gov/bds/article/411357</a>
Fife, WA	<a href="http://cityoffife.org/online-guide/businesses/economic-development/building-permits">http://cityoffife.org/online-guide/businesses/economic-development/building-permits</a>
San Luis Obispo, CA	<a href="http://slocity.org/home/showdocument?id=3878">http://slocity.org/home/showdocument?id=3878</a>
Chandler, AZ	<a href="http://www.chandleraz.gov/default.aspx?pageid=371">http://www.chandleraz.gov/default.aspx?pageid=371</a>
Nashville, TN	<a href="http://www.nashville.gov/Codes-Administration/Construction-and-Permits/Building-Permit-Process/Residential-Building-Permits.aspx">http://www.nashville.gov/Codes-Administration/Construction-and-Permits/Building-Permit-Process/Residential-Building-Permits.aspx</a>
Soledad, CA	<a href="http://www.ci.soledad.ca.us/DocumentCenter/Home/View/388">http://www.ci.soledad.ca.us/DocumentCenter/Home/View/388</a>
Upper Arlington, OH (FIFO for resubmittals)	<a href="http://www.uaoh.net/egov/documents/1443811085_25463.pdf">http://www.uaoh.net/egov/documents/1443811085_25463.pdf</a>
Snellville, GA	<a href="http://www.snellville.org/building-permits-inspections">http://www.snellville.org/building-permits-inspections</a>
Wentzville, MO	<a href="http://www.wentzvillemo.org/document_center/BuildingDivision/Commercial%20Plan%20Review%20Submittal%20Guide.pdf">http://www.wentzvillemo.org/document_center/BuildingDivision/Commercial%20Plan%20Review%20Submittal%20Guide.pdf</a>
Sedona, AZ	<a href="http://www.sedonaaz.gov/your-government/departments/community-development/development-services/permits/building-permits">http://www.sedonaaz.gov/your-government/departments/community-development/development-services/permits/building-permits</a>

Regarding Chicago, IL: “After the system was implemented, delays drew widespread criticism and delays caused a bottleneck...Permits are now done in a First-In-First-Out basis compared to the previous situation where expeditors used to ‘butt into line’ and consequently they feared loss of influence under the new system. The contention is that expeditors spread false rumors about extensive delays in an attempt to ‘torpedo the new system.’”

- Kelly, George. (2009). [Selected Readings on Information Technology Management: Contemporary Issues](#). IGI Global.

# FIFO Considerations

## City of Shoreline WA – First In First Out Rationale

### Mitigate Customer Complaints

A frequent cause of customer complaints during a service is unmet expectations. The guarantee of an approval date unnecessarily encourage customers to expect timely turnaround, regardless of unforeseen issues during the approval process

A FIFO approach will not carry any expected delivery date, eliminating the opportunity to fall short of customers expectations

Adding value to a service by extending a promised delivery date wastes resources and is an irritant to the applicant if the expectation is not met or surpassed

### Foster Symbiotic Relationship Between Applicant and County

The Applicant themselves is a vital player in the approval process, and is expected to timely and accurately submit all required information. Furthermore, the approval processes is contingent on the ability of the Applicant to articulate their needs and serve as the advocate for their project

This relationship between county and applicant is best fostered through the consistent treatment of every customer seeking a permit approval. The OnSchedule system reduces the incentive for the Applicant to fulfil their role in the approval process

### Workflow Protection

Issues arise when work is sent through the system quicker than it can be handled. The need to meet deadlines can necessitate work being completed more quickly than the process allows

Issues arise when there are too many processes in the approval process. The use of a single approval system dramatically reduces the number of processes

By having a single approval process, unnecessary steps and administrative burdens are removed

The use of a FIFO approval process creates a streamlined process, reducing the need for multiple workflows for the approval process

Reference: <http://www.shorelinewa.gov/home/showdocument?id=6203>

## Contacts

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**Paul Denvir**

Senior Managing Partner  
Gartner Consulting  
Telephone: +1 908 249 8007  
paul.denvir@gartner.com

**John Kastrinos**

Director  
Gartner Consulting  
Telephone: +1 646 288 8618  
john.kastrinos@gartner.com

**Christina Rinaldi**

Associate Director  
Gartner Consulting  
Telephone: +1 512 658 4669  
christina.rinaldi@gartner.com