



**City of Hamilton, Public Works Department
Hamilton Water
Meeting Minutes**

Project: City of Hamilton W/WW & SW Master Plan Development Application Support		Project No.: 717010 420108
Meeting: Fire Flow Policy Review and Update with West End Homebuilders Group		
Date: August 26, 2020		Time: 1:00 pm –3:00 pm
Location: WebEx		
Attendees:		
<u>City of Hamilton</u> Udo Ehrenberg Mark Bainbridge Jorge Caetano Bert Posedowski	<u>City of Hamilton</u> Tony Sergi Binu Korah Sally Yong-Lee Zivko Panovski Gavin Norman	<u>GM BluePlan</u> Sarah Primmer Mark Zamojc <u>WEHBA</u> Suzanne Mammel Steven Frankovich

Meeting Summary

- The new Fire Flow Policy for development applications was approved by Council Public Works Committee for use as a pilot in November 2019. Since that time, the City and GM BluePlan have been collecting data on development applications as it relates to review time and successful approval of Fire Flow calculations
- GM BluePlan presented approval stats dating back to late 2019 related to fire flow calculations and development application approval. (PowerPoint slide were circulated by email on Aug 28, 2020)
- In general, review times have been shortened. It is assumed that the simpler fire flow calculation process has resulted in fewer calculation errors, and more efficient review.
- Based on the data processed to date, it also appears that fewer submission iterations have been required to reach approval under the new Fire Flow Policy.
- GM BluePlan discussed how NFPA was considered in development of new Fire Flow Policy and Fire Flow Targets.

Discussion Items

- **Question:** Hydrant Testing – has hydrant test data been updated and will new data be provided to development community?
 - **Answer:** Ongoing hydrant testing is completed by the City and the hydrant test database is continually updated. Test results for hydrants adjacent to development properties is available to the development community. This can be accessed by emailing Udo.



- **Question:** Is there 'hotspot' mapping for areas of low available fire flow
 - **Answer:** No formal mapping is currently available for distribution, but could potentially be prepared and provided in future.
- **Question:** Are there any industrial areas that have issues with meeting 250 L/s?
 - **Answer:** There are some areas that the City is aware of currently and further areas may also be identified as part of the Master Plan. Areas that cannot meet the target fire flow will be reviewed at the trunk Master Plan level to determine if City actions in pumping, storage or trunk watermain upgrades or operational changes can improve these known areas.
 - In the recent review period (Nov 2019 onward), there are no industrial applications that have not had adequate available Fire Flow.
 - "Small ICI" category was added with Target FF of 100L/s to address some smaller employment areas, typically within downtown core
- **NFPA Discussion** – NFPA sprinkler needs were considered, however are not currently part of the policy and no 'sprinkler credit' is provided within policy
- **Question:** if system meets NFPA sprinkler flow needs, but doesn't meet target or the OBC Volumetric Calculation, how will the City handle this case?
 - **Answer:** this would be a rare case that, if occurred, the City would have to review in further detail. But in general, the City is responsible for *system* fire flow at the street/hydrant. the City wants to provide a system robust enough to meet the OBC and Targets, not lower values based on sprinkler needs
- **Question:** what about small industrial areas in parts of the City that don't have 250 L/s?
 - **Answer:** "Small ICI" category was added with Target FF of 100L/s to address some smaller employment areas. Developments that may still be problematic because they are slightly larger than the "Small ICI" volume may be reviewed on a case by base basis.
- **Question:** is there a way to incorporate sprinkler calculations within policy?
 - **Answer:** No plans to update the policy to include considerations for sprinklers, however, the City is willing to review exceptional cases in further detail and work with development community for mutually beneficial solutions.
- **Question:** now that the pilot review period has ended, does the City intend on continuing with updated Fire Flow Policy?
 - **Answer:** Yes, the current plan is to continue with no modifications or updates to the policy
- Request from WEHBA that the City looks at 'hot spots' of low AFF such as within industrial areas or in downtown core to ensure policy is still applicable and reasonable within these areas.
 - Request from City that WEHBA review fire flow needs within the private property and private infrastructure in dense low level condo sites and ensure



Development Application Support
Fire Flow Policy Meeting-WEHBA
August 26, 2020

adequate watermain sizes and pressures throughout larger condo development blocks. This topic to be added to a future DILG agenda.

Next Steps:

- City continue with updated Fire Flow Policy
- City continue to monitor development application statistics
- Continue open discussion and dialogue with Home Builder's associations as required

These minutes have been prepared by the undersigned. If there are any errors or omissions in these minutes, please contact the author as soon as possible.

A handwritten signature in blue ink that reads 'Mark Zarije'.

GM BLUEPLAN ENGINEERING LIMITED

Hamilton Fire Flow Policy Pilot (PW19096) West End Home Buildings Association – Feedback Meeting

August 24, 2020

1:00 – 3:00pm

AGENDA

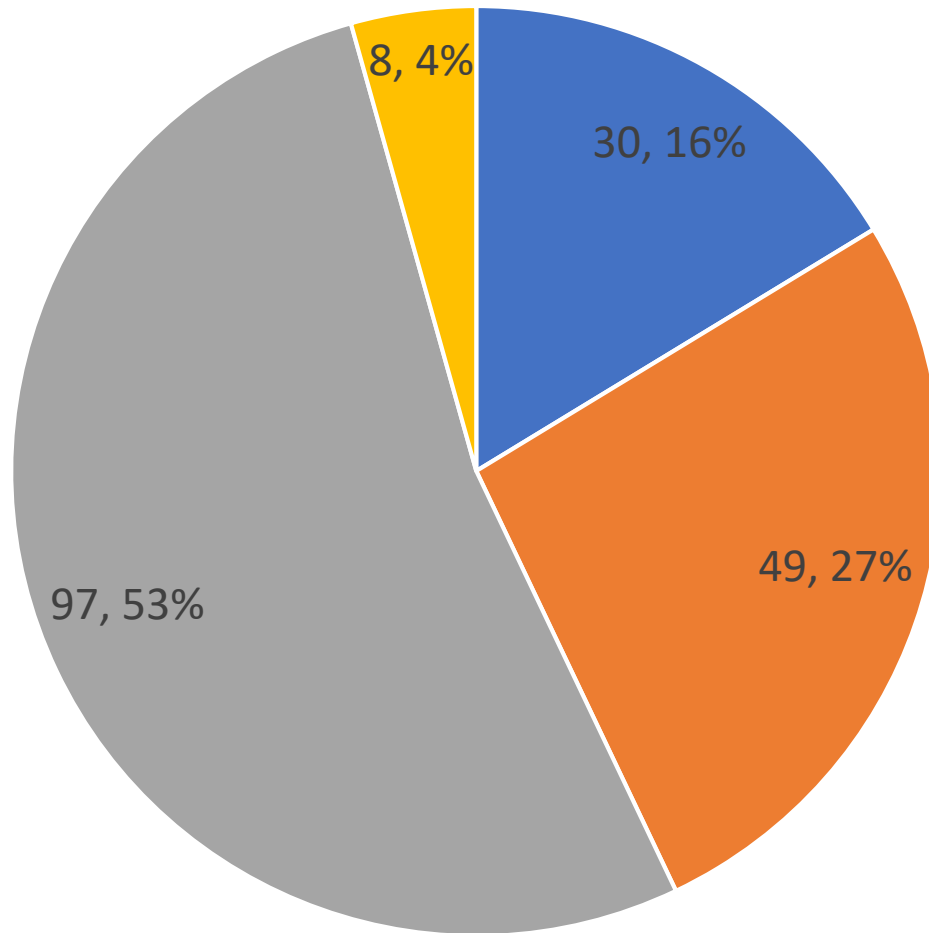
1. Background – City
 - Statistics to date – City/GMBP
2. Home Builders Feedback – WEHBA
3. NFPA 13
 - Current Policy History – GMBP
 - Ideas for Policy Enhancement – WEHBA
4. Next Steps

City of Hamilton New Fire Flow Policy Pilot (PW19096)

Summary of Development Applications Requiring Water Servicing Review

December 31, 2019 to August 21, 2020

Number and Type of Unique Applications Reviewed



- Old Policy
- New Policy
- FC/DRT/POST/No Calculations
- Transition to New Policy

Notes:

1. Some applications had multiple submissions reviewed during this time period, however this chart counts each application only once.
2. Submissions provided for Formal Consultation (FC), Development Review Team (DRT) and Plan of Subdivision Team (POST) meetings do not typically contain calculations and comments provided for these meetings usually outline expectations for future submissions. Also included in this category on the chart is applications for which calculations are required but were not submitted during the time period. We will expect to receive calculations for most or all of this category of applications in the future.

Applications Reviewed Under the Old Fire Flow Policy

- Applications reviewed under the Old Fire Flow Policy during the pilot period had previously submitted Fire Underwriter’s Survey (FUS) method required fire flow (RFF) calculations prior to the adoption of the new policy by Council on November 27, 2019.
- All of these applications were therefore a second (or higher) submission.
- Of the **30** unique applications reviewed under the old fire flow policy during the pilot period:
 - **25** were approved
 - **5** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Inadequate capacity (additional hydrant testing or Watermain Hydraulic Analysis required as next step)	2
Form 1 required for new watermain	1
Incorrect FUS calculations	1
Application is going To LPAT for reasons unrelated to water servicing	1

Applications Reviewed as a Transition to the New Fire Flow Policy

- Applications reviewed as a transition to the New Fire Flow Policy during the pilot period had previously submitted FUS method RFF calculations prior to the adoption of the new policy by Council on November 27, 2019, and subsequently requested to transition to the new fire flow policy, paying additional review fees as required.
- Of the **8** unique applications reviewed as a transition to the new fire flow policy during the pilot period:
 - **6** were approved
 - **2** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Updated Servicing Plan required.	1
Form 1 required for new watermain	1

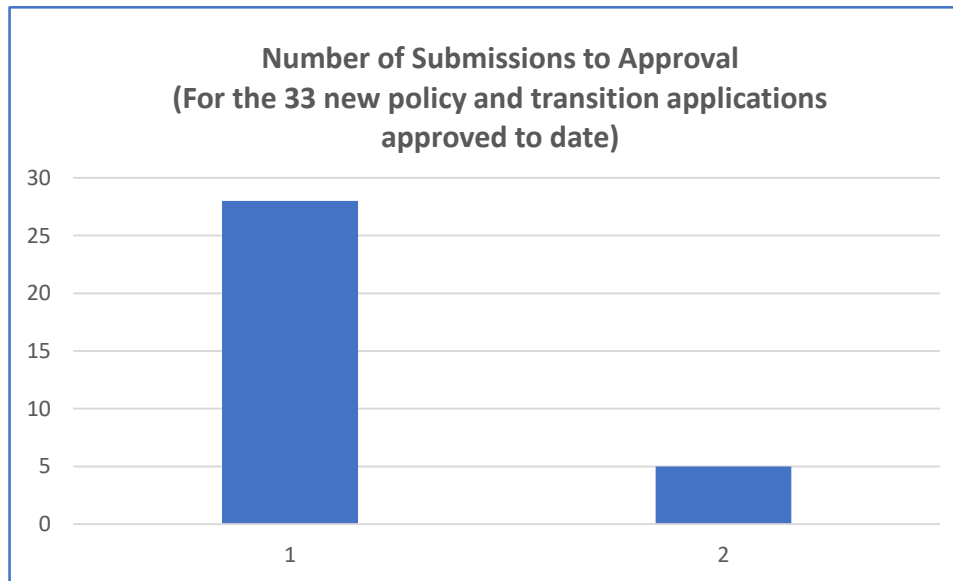
Applications Reviewed Under the New Fire Flow Policy

- Applications reviewed under the New Fire Flow Policy had not previously submitted RFF calculations prior to November 27, 2019.
- Of the **49** unique applications reviewed under the new fire flow policy during the pilot period:
 - **27** were approved
 - **22** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Inadequate capacity - additional hydrant testing or Watermain Hydraulic Analysis (WHA) required as next step	9
Submitted FUS Calculations	6
Form 1 required for new watermain	2
Hydrant testing data required	2
Incorrect or inadequate OBC calculations	1
Inadequate servicing plan	1
Domestic/process calculations required	1

New Fire Flow Policy – Time to Approval

- From the date of first submission of Ontario Building Code (OBC) RFF calculations to date of approval of water servicing, for applications reviewed under the new fire flow policy (of the 33 new and transition applications approved to date):
 - Minimum time to approval – 7 days
 - Maximum time to approval – 129 days (includes time for applicant to prepare a second submission)
 - Average time to approval – 25 days

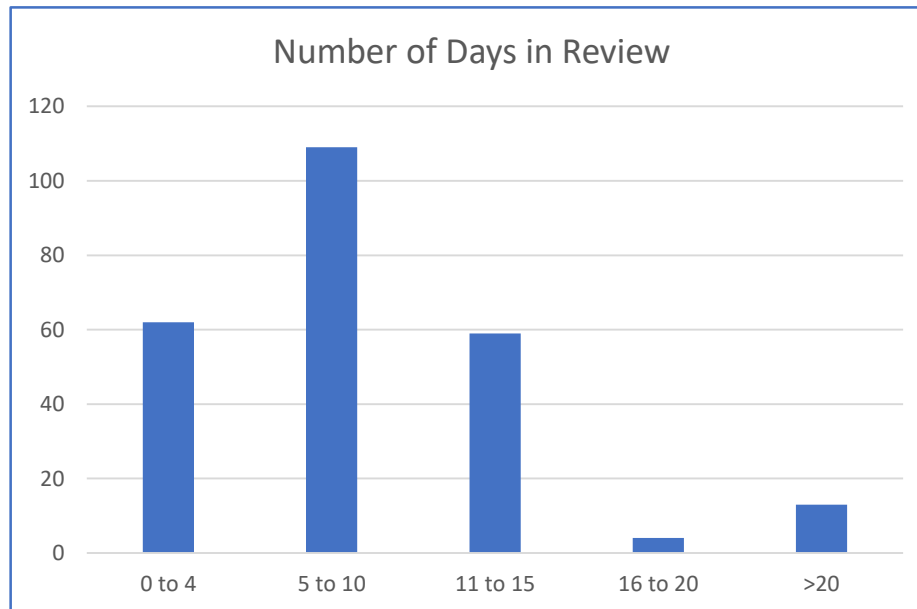


Notes:

1. The review timelines outlined on this slide are for site plan approval/amendment applications and zoning/official plan amendment applications. Draft Plan of Subdivision applications and External Works Agreements typically require Form 1 approval, which increases the length of the review period.

New Fire Flow Policy - Review Timelines

- From the date of Hamilton Water Receives the circulation to the date Hamilton Water circulates comments:
 - Minimum time – 0 days (i.e. comments given the same day)
 - Maximum time– 32 days
 - Average time to comment – 8.5 days



Notes:

1. The review timelines outlined on this slide are for site plan approval/amendment applications and zoning/official plan amendment applications. Draft Plan of Subdivision applications and External Works Agreements typically require Form 1 approval, which increases the length of the review period.

General Observations

- We rarely see incorrect/inadequate calculations under the new fire flow policy. There are less places for calculation errors to occur using the OBC RFF method compared to the FUS RFF method.
- It is easier to quickly identify if there will be a watermain capacity issue for an application under the new fire flow policy.

General Observations- continued

- The fillable PDF form appears to be helpful for applicants and engineers who are less familiar with City of Hamilton requirements and policies, as it guides them through the process and ensures that we receive the information we need.
- We have experienced some issues with the wrong fire flow policy being used for submissions during the pilot period. As time passes, we are seeing most applicants following the correct approach. We have also refined our approach to determining which fire flow policy applies, and have put in place a procedure for applicants to transition from the old policy to the new policy if desired.

Home Builders Feedback – WEHBA

NFPA 13 – Current Policy History

- During the development of the Fire Flow Policy, NFPA 13 was reviewed to determine typical sprinkler requirements for different types of development.
- NFPA 13 sprinkler calculations are not reviewed as part of development applications.
- As such, the main purpose of the NFPA 13 review was to ensure that the fire flow targets developed were sufficient to meet typical sprinkler demands.

NFPA 13

Ideas for Policy Enhancement – WEHBA