



Office of the Auditor General / Bureau du vérificateur général

**FOLLOW-UP TO THE 2009 AUDIT OF EIGHT SPECIFIC
BUILDING CODE SERVICES FILES**

2011

**SUIVI DE LA VÉRIFICATION DE HUIT DOSSIERS PRÉCIS
DES SERVICES DU CODE DU BÂTIMENT DE 2009**

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EXECUTIVE SUMMARY

Introduction

The Follow-up to the 2009 Audit of Eight Specific Building Code Services Files was included in the Auditor General’s Audit Plan.

The key findings of the original 2009 audit included:

- The City conducted more than a thousand building inspections from 2006 to 2008 using unqualified students rather than qualified inspectors. A review of correspondence and interviews with Building Services management confirmed that they were all aware that the practice, in essence, is illegal.
- Approvals were granted even though the inspector was not able to review the area being inspected.
- Charges for re-inspections to some builders were waived while for other builders they were not.
- In addition, the Internet and email usage of one manager was found to be largely personal and in many cases inappropriate.

Summary of the Level of Completion

The table below outlines our assessment of the level of completion of each recommendation as of January 31, 2011. Management’s response was in agreement with that assessment.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	-	-	-
ACTION INITIATED	25 – 49	1	1	5%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	-	-	-
COMPLETE	100	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22	21	95%
TOTAL			22	100%

Conclusion

Building Code Services has made a very serious effort to address the recommendations of the audit. We also found that in many cases where management originally disagreed with the original audit recommendations, they had taken some action to address the general intention of the recommendations.

Acknowledgement

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.

RÉSUMÉ

Introduction

Le Suivi de la vérification de huit dossiers précis des Services du Code du bâtiment de 2009 était prévu dans le Plan de vérification du vérificateur général.

Les principales constatations de la vérification de 2009 sont les suivantes :

- La Ville a fait effectuer plus de mille inspections de bâtiments par des étudiants non agréés plutôt que par des inspecteurs qualifiés de 2006 à 2008. Un examen de la correspondance et des entrevues avec la direction des Services du bâtiment ont confirmé que les personnes concernées savaient que cette pratique était fondamentalement illégale.
- Des approbations ont été accordées alors que l'inspecteur n'avait pas eu accès au secteur devant être inspecté.
- Les frais de réinspection ont été levés dans le cas de certains constructeurs, tandis que dans d'autres cas, cela n'a pas été fait.
- Par ailleurs, la vérification a constaté que l'utilisation par un gestionnaire des services Internet et du courrier électronique de la Ville était surtout de nature personnelle et dans bien des cas, inappropriée.

Sommaire du degré d'achèvement

Le tableau ci-dessous présente notre évaluation du degré d'achèvement de chaque recommandation au 31 janvier 2011. Par la suite, la réponse de la direction concordait avec cette évaluation.

CATÉGORIE	POURCENTAGE COMPLÉTÉ	RECOMMANDATIONS	NOMBRE DE RECOMMANDATIONS	POURCENTAGE DU TOTAL DES RECOMMANDATIONS
PEU OU PAS DE MESURES PRISES	0 – 24	-	-	-
ACTION AMORCÉE	25 – 49	1	1	5 %
COMPLÉTÉE EN PARTIE	50 – 74	-	-	-
PRATIQUEMENT COMPLÉTÉE	75 – 99	-	-	-
COMPLÉTÉE	100	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22	21	95 %
TOTAL			22	100 %

Conclusion

Les Services du Code du bâtiment ont réalisé de grands efforts afin de donner suite aux recommandations formulées dans la vérification. Nous avons également trouvé que, dans de nombreux cas où la direction n'était pas d'accord à l'origine avec les recommandations initiales de la vérification, elle avait pris des mesures afin de tenir compte de l'intention générale des recommandations.

Remerciements

Nous tenons à remercier la direction pour la coopération et l'assistance accordées à l'équipe de vérification.

1 INTRODUCTION

The Follow-up to the 2009 Audit of Eight Specific Building Code Services Files was included in the Auditor General's Audit Plan.

The key findings of the original 2009 audit included:

- The City conducted more than a thousand building inspections from 2006 to 2008 using unqualified students rather than qualified inspectors. A review of correspondence and interviews with Building Services management confirmed that they were all aware that the practice, in essence, is illegal.
- Approvals were granted even though the inspector was not able to review the area being inspected.
- Charges for re-inspections to some builders were waived while for other builders they were not.
- In addition, the Internet and email usage of one manager was found to be largely personal and in many cases inappropriate.

2 KEY FINDINGS OF THE ORIGINAL 2009 AUDIT OF EIGHT SPECIFIC BUILDING CODE SERVICES FILES

Summary of Findings

A total of two subdivisions and six addresses were reviewed. The Fraud and Waste Hotline initially reported one address and a subdivision, but the review was widened based on the interviews and the findings in the email system.

File No. 1

1. The Building Inspector found that a 2.7 m high concrete wall and foundations were under construction in the property without a building permit. On the basis of the investigation, the Inspector proceeded to prepare an Order to Comply (OTC) to require the owner to submit a building permit application for the structure.
2. The Program Manager, Building Inspections Unit (PMI) reviewed the OTC and requested additional information from the property owner. The drafting service retained by the property owner to provide architectural design and drawing services informed the PMI that the project consists of three components, namely a custom home, a garden shed and the concrete wall and foundations. The letter indicates that the concrete wall is a fence to an 18th century landscape park garden and will not be attached to the garden shed.
3. The PMI agreed with the opinion of the drafting services firm and classified the structure as a fence; on this basis, the PMI concluded that no building permit

would be required, and revoked the OTC. In our opinion the OTC should not have been revoked.

4. On the basis of our analysis, we have concluded that the PMI should have required a building permit for the construction of the concrete wall because the overall project comprises the custom house, the shed and the concrete wall (fence). The custom house and the shed each require a building permit and the concrete wall as part of the project would also require a permit.
5. As the fence is over 1.8 m high (it is in fact 2.7 m high), is constructed of reinforced concrete, and is part of the overall project that requires a building permit, the fence falls under the provisions of Part 4 of the Building Code.
6. The PMI should have examined the entire project, which requires building permit, rather than allow it to be piecemealed.

File No. 2 - Subdivision

1. The complaint indicated that the PMI had allowed the builder to build houses when there are structural issues with the soils without addressing those issues. Review of the files and relevant correspondence showed that the Program Manager, Building Inspections Unit (PMI) undertook the inspections based on the building permits issued.
2. Approximately 100 building permits were issued during 2008 for residential buildings (houses and townhouses) located in an area of sensitive clays. The foundation design for these houses did not take into account the sensitive clays, although the geotechnical report prepared for the subdivision had identified the presence of the sensitive clays. These building permits should not have been issued based on the design submitted, as further discussed in the following section.
3. The files do not contain all the documentation that is required based on the Policies, Guidelines and Standards. For example, the inspection files do not always contain a copy of the approved roof truss drawings; in some cases, the structural engineer's letter in the file does not correspond to the approved version of the letter.
4. We found that in some instances the site review structural engineer reported errors or omissions in the placement of reinforcing steel in some footings and foundation walls; however, the City's inspector did not insist that the engineer return to confirm and sign-off on the correction of the noted deficiencies. Instead, the City's inspector performed the review of the deficiencies and signed-off on the corrections. This procedure unnecessarily transfers the workload, responsibility and potential liability for the review to the City.
5. In two inspection reports for two different buildings the building inspector provided an inspection report indicating that the inspection of the building

plumbing had passed the inspection, but he had not done an inspection because the plumbing had been covered over by the basement concrete slab. This is a misrepresentation of the results of the inspection, as the inspector passed the uninspected plumbing without actually inspecting it. The inspections should have been given a “Fail”, and the inspector should have required that the contractor uncover the covered plumbing for inspection. The inspector indicated that he had done the same in two other sites; he also affirmed that the PMI had been apprised of the situation and had agreed to it.

6. The Building By-law provides that a Refundable Inspection Fee must be deposited with each building permit application. The amount of the fee refunded to the owner is reduced if the owner causes repeat inspections by not being ready for inspection or by not providing sufficient notice. The inspector is required to mark on the inspection form when the owner caused a repeat inspection. However, in the specific subdivision, the inspectors did not mark the box for charging of repeat inspection fees even though there were several repeat inspections caused by the builder not being ready for the inspection. Our review found there was approximately \$5,000 in fees not charged to this developer. The City should charge the developer their fees.

Sensitive Soils

1. Sometime in 2008 the Program Manager, Permit Approvals Unit (PMA) decided to request the January 2007 geotechnical report prepared for the particular stage of the subdivision, as he had not received a copy with the submissions for building permit made by the developer. He reviewed the report in August 2008 and at that time became aware of the problem in this particular stage of the subdivision. The PMA stopped issuing building permits until he could be satisfied that the design of the houses met the requirements of the Building Code. The specific requirements for the design of the foundations were provided by the PMA to the developer.
2. The PMA informed the PMI and the developer of the concern and required that the foundations for all buildings in that stage of the subdivision be designed by professional engineers. Approximately six houses had been completed by this time, and the foundations of seven others had been completed and backfilled, before the PMA had read the geotechnical report and taken the action noted above. These buildings require special remedial measures to prevent differential settlement and to achieve allowable total settlement. At the time of the audit work in early 2009, the City was reviewing these special remedial measures.
3. During an interview, the PMA indicated that the reason he was not aware of these facts during the review of the building permit applications was that he had not received the geotechnical report prepared for the subdivision, notwithstanding that the report was submitted to the City in early 2007. The

PMA indicated that he had specifically requested a copy of the geotechnical report, and that otherwise he would not have received one. We asked the PMA for copies of the geotechnical reports for previous stages of the Subdivision, but he did not have them in his files; they were provided during this Audit by the Planning and Infrastructure Approvals (PIA) branch of the Infrastructure Services and Community Sustainability Section (formerly Planning, Transit and the Environment Section).

4. According to the PMA, the PIA receives a copy of the geotechnical report with the engineering drawings for the subdivision. However, there is no established mechanism for a copy of the geotechnical report to be forwarded to the PMA. Consequently, recommendations regarding building foundations, although provided in the geotechnical report, are not known to the PMA as he reviews the building permit drawings. Although the PMA requested a copy of the geotechnical report in this instance, this is not done in all cases – as evidenced by the fact that the PMA did not have copies of previous reports – and there is no formal procedure to ensure that a copy of the report be sent to the PMA.
5. We consider that the PMA must not issue any building permits until the geotechnical information has been provided by the developer and the PMA has had adequate time to review the geotechnical report. Therefore, the City should revise the Policies, Guidelines and Standards to require submission of a copy of the geotechnical report with the building permit applications.
6. Based on his work approving building permits applications for buildings in this subdivision, the PMA was aware (or ought to have been aware) that there had been sensitive clay problems in the subdivision and its vicinity in previous stages of construction.
7. The PMA did not require that the geotechnical report be submitted prior to issuing the building permits.
8. We consider that information about sensitive soils should be shared between all divisions that could be affected by them, including Planning and Infrastructure Approvals, Infrastructure Management, Building Code Services, etc.
9. During the interviews it was learned that houses constructed in an area had required repairs as a result of movement of the foundations due to the underlying sensitive clays. The files for the repairs to the house foundations and foundation walls located in this vicinity were also reviewed to determine the available information regarding the location of sensitive soils in the vicinity of the subdivision.

File No. 3 - Subdivision

1. This subdivision was reviewed as a result of information provided during the audit.

2. In some cases, the final occupancy permit was issued almost three years after the partial occupancy permit was issued. A Partial Occupancy Permit is issued when the permit holder wishes to allow occupancy to occur in an unfinished building. A Final Occupancy Permit is issued when construction is complete and all outstanding Code deficiencies, as listed in Inspection Reports, have been addressed.
3. The concern with the very long time between the Partial and the Final Occupancy Permits is that any deficiencies noted in the inspection reports prepared for the Partial Occupancy Permit could remain uncorrected for a significant period.
4. The City has now implemented a mechanism to reduce the occurrence of these situations by stipulating in the Building By-law that the refundable inspection fee shall be forfeited by the person named on the fee receipt issued by the City upon payment of the fee, if the final occupancy permit has not been issued within three years from the date of issuance of the permit to construct.
5. In some instances, the partial occupancy inspections indicated conditions which may not have been checked properly before the final occupancy permit was issued. For instance, in one occasion the partial occupancy permit required that the tele-posts (i.e., columns) be secured to the foundation, but the inspection noted that the inspection had passed. In our opinion, the inspection should have been a fail with a requirement for re-inspection.
6. In some cases, the final occupancy inspections for mechanical give as a condition "Ventilation Section 9.32 OBC", but do not provide any further details or are sufficiently specific to permit follow-up. In the first place, there should be no conditions in the Final Occupancy Permit inspection forms, as it is issued when all the requirements have been satisfied. If a condition is to be placed, it should be specific. The condition noted above refers to a section of the Code that covers every aspect of the ventilation in a building constructed under Part 9 of the Code.
7. The documentation in the files is not always complete. For example, a number of files did not have one or several of the required Plan of Survey denoting the as-built survey, soils engineering report, roof truss drawings, and engineering review letter.

File No. 4 - House

1. This house was constructed with a building permit issued on November 25, 2004, but the owner/builder did not call for a number of inspections, including foundations, basement insulation, final plumbing, final mechanical, and occupancy permit.
2. The Building Inspector issued an Order to Comply on January 12, 2009, requiring that the owner obtain an occupancy permit. The deadline in the OTC

was January 19, 2009. The PMI provided an extension to the owner for one month on January 20, 2009.

3. The owner did not obtain the required inspections during construction.
4. The lack of inspections during construction is mostly due to the owner not following the requirements provided by the City. As the inspections are programmed when the owner requests an inspection, it is easy for several weeks to pass before the inspector carries out a progress visit to the site.
5. The PMI provided the owner a 30-day extension to cover the combustible insulation in the basement. This delay places undue potential liability on the City in the case that the illegally occupied building caught fire and the combustible insulation became a factor in any casualties.
6. The work required to comply with the OTC could have been completed in less than one week, as stipulated in the OTC. There is no valid reason for the owner to require one month to complete the work, particularly in light of the delay in getting the required occupancy permits. It should be noted that the building was occupied without an occupancy permit from the City.
7. The PMI indicates that “the owner meets the criteria to be exempt from having to provide an as built survey”. The City’s Inspection Policies, Guidelines and Standards do not allow exceptions to the requirement.
8. The requirement for an as-built survey is included in both the City’s Inspection Policies, Guidelines and Standards and in the Building By-law. The concern with allowing some owners to not provide a survey is that it creates an atmosphere of favouritism, plus it unnecessarily transfers potential liability for the correct location of the building to the City.
9. The PMI directed the Building Inspector to issue a Partial Occupancy Permit that would exclude the use of the basement.
10. In this particular case, the fact that the combustible insulation was not properly covered means that the fire separations were not complete. A Partial Occupancy Permit should not be issued.

File No. 5 - House

1. Communications in the file indicate that the PMI told the owner that an as-built survey is not required for this location, when in fact the Policies, Guidelines and Standards require one, without exceptions. The Building Inspector issued a Final Occupancy Permit based on the direction from the PMI. Furthermore, the PMI required the inspector to ascertain the location of the house with respect to the property boundaries using landmarks.
2. The concerns with this file are that the Policies, Guidelines and Standards state that there are no exceptions to the requirement for an as-built survey. A survey

was required. In addition, asking the inspector to verify the correct emplacement of the house with respect to the property boundaries essentially removes the responsibility for meeting the requirement from the owner and transfers it, unmitigated, to the inspector and hence to the City. In our opinion, this is a case in which the PMI is trying to not inconvenience the owner, but in effect is not acting in the best interest of the City.

File No. 6 - House

1. The Building Inspector noticed on November 13, 2008 that the owner had started construction with no permit or application. The owner informed the Building Inspector that he had a meeting scheduled with the PMI on November 21. The Building Inspector wrote to the PMI on November 17, to request instruction on whether to issue an OTC; the application for permit was submitted on November 14th.
2. The PMI wrote to the Building Inspector indicating that the file had been re-evaluated and that he had allowed construction of the foundation to proceed without a permit because of the impending cold weather; no construction beyond the foundation should be allowed until the building permit is issued. The PMI should not have allowed construction to proceed without a permit.

File No. 7 - Vars Fire Hall

1. The Vars Fire Hall at 6090 Rockland Road was constructed in 2006 and completed in 2007. For the purposes of the Building Code, the owner is the Real Property Asset Management Branch; the operator is the City of Ottawa's Fire Services Branch.
2. RPAM and Fire Services decided to install an underground cistern with treatment system to provide storage for two weeks of demand for the building. Drinking water would be supplied using bottled water.
3. The PMI issued an Order to Comply, indicating that four contraventions of the Building Code had to be corrected before an Occupancy Permit could be issued, namely a) Complete the building exterior; b) Provide sealed general review letter from the civil engineer regarding the fire fighting water supply; c) Provide general review letter; and, d) No potable water is provided.
4. Discussions regarding the suitability of the drinking water supply and whether it met the requirements of the Building Code and the Safe Drinking Water Act led to a Partial Occupancy Permit being issued with the condition that the building water supply would be treated as non-potable and all drinking water requirements would be met using bottled water.
5. The Final Occupancy Permit was issued in December 2007, with the condition that the water supply be tested every two weeks in accordance with Ontario Regulation 252/02.

6. Our review of the file did not find any items of concern with respect to the actions taken by the PMI.

File No. 8 - House

This residence was constructed in 2002. The main issues that were found in the file documentation are as follows:

1. The professional engineer report on the foundation soils was not available at the time of the footing construction, but the inspector provided a Pass in the Inspection Report, and indicates that the soil “appears Ok”. The inspector should have insisted in receiving the report before the concrete was placed. As in other instances discussed in this report, the action of the inspector creates a transfer of liability to the City. Although the inspector is qualified to do the inspections, the inspector must insist that the owner follows the rules.
2. A note to file by the inspector on June 11, 2003 indicates that the house was built without the required inspections. The note further indicates that the last inspection was done June 6, 2002 for the insulation and did not pass; framing deficiencies were not corrected; occupancy inspection was not completed; well water test required, but not provided; and the permit was issued for a single attached garage, not a double garage as built.
3. Subsequent documentation in the file, prepared by another inspector, indicates that the required inspections were not required because the house was pre-fabricated. However, the fact that the house may be prefabricated does not remove the requirement for inspections.
4. A note on June 25, 2003 by another inspector indicates that the soil bearing report by a professional engineer was not required. This is not in accordance with the Policies, Guidelines and Standards. The note further indicates that the footings and pad footings are now approved (in June 2003), but does not provide any documentation on why they were approved.
5. The final occupancy inspection for mechanical gives as a condition “Ventilation Section 9.32 OBC”, but does not provide any further details or is sufficiently specific to permit follow-up. This condition is extremely vague, apart from the fact that it should not be required if the house is constructed in accordance with the Code.

Document Retention Requirements

1. Section 20 of the Policies, Guidelines and Standards prepared by the Building Code Services Branch list the documents that must be preserved with the building file.
2. The results of the review of the various files found that several of them do not contain all the documentation that is required based on the Policies, Guidelines and Standards. For example, the inspection files do not always contain a copy of

the approved roof truss drawings, as-built survey and soils report; in some cases, the structural engineer's letter in the file does not correspond to the approved version of the letter.

3. In addition, in a number of files, the PMI allowed the owner to not submit the required as-built survey. This practice should be eliminated due to the potential for unforeseen and unnecessary liability to the City. In addition, the requirement by the PMI that one of the inspectors uses visible landmarks to ascertain that the house is located properly within the property is not a proper use of the resources available to the PMI.
4. In reviewing the files with respect to the contractor who covered the plumbing work, Finding 1 (*Inspection Passed Site Unseen*) below, it was noted that they do not contain information on the companies responsible for the various trades. This information is essential in order for the City to be able to keep a complete database of residential construction within the City.

Structural Field Review

1. The protocol for sensitive soils prepared by the Branch (Sensitive Soils Inspection Guidelines) indicates that the structural engineer shall provide site review memos for each lot confirming that the footings and foundation walls sizes and reinforcing, concrete strength, etc. are installed as per the design requirements and approved permit drawings.
2. We found in some instances that the structural engineer's representative responsible for reviewing the foundation and foundation walls during construction found deficiencies in the placing of the reinforcing steel and noted them in the inspection memos; however, the structural engineer did not return for re-inspection. The City's inspector allowed construction of the building to proceed on the basis of the structural engineer's initial memo, instead of requiring that the engineer return to confirm that the footings and foundation walls were reinforced in accordance with the design and his instructions.
3. The concern with the procedure as carried out is that the owner's and engineer's responsibility for the corrections or additions to the reinforcement are assumed by the City's inspector. The inspector must be absolutely clear that the responsibility for the sign-off on the foundation is the owner's and the owner's engineering consultants.

Inspection Passed Site Unseen

1. During the review of inspection files, we found two instances where the building inspector arrived at the site and found that there was no access to the basement to permit inspection of the plumbing; the inspector instructed in writing that the contractor was not to cover the plumbing until the inspector had inspected it; but upon his return a few days later, the inspector found that the contractor had poured the concrete slab for the basement floor, thus covering the plumbing under the slab and preventing its inspection.
2. Nonetheless, the inspector provided a Plumbing Inspection Report indicating that the plumbing had passed, without actually inspecting the plumbing. The reasoning for this, as written in the Inspection Reports, was that the contractor had done acceptable and similar work in other sites.
3. During the interview the inspector confirmed that there had been two other occasions (a total of four times) where he had approved the plumbing site unseen under similar circumstances. The inspector did not recall the addresses of the other two sites, but indicated that both were also located in the subdivision.
4. When asked if the PMI was aware of these cases, the inspector indicated that he had discussed the matter with the PMI, who had indicated this procedure was acceptable. Discussion of the matter with the PMI during the interview, and subsequent conversations, found that the PMI did not agree with this procedure. Further discussion revealed that another inspector remembered that this had been done in two other sites, located in other subdivisions; however, it was not possible during this Audit to confirm which properties were involved.

Refundable Inspection Fees

1. The Building By-law makes provision for a refundable inspection fee to be deposited with the building permit application. Should the builder call in unnecessary inspections when the work is not ready for inspection, the refundable inspection fee will be charged \$100 per “not-ready for inspection” site visit by the inspector.
2. During the review of the files for a specific subdivision, it was noted that the inspectors did not mark the box for charging of inspection fees even though there were several repeat inspections. We reviewed fifty files at random within the specific subdivision; all fifty files had at least one “not ready for inspection” event and found that none of the cases had been marked for the \$100 fee. This represents \$5,000 that the City did not charge this specific developer. The City should now charge the developer those fees.
3. Review of the files for other developers and building permit files found that other builders are being charged the “not ready for inspection fees”.

- The City provided list of fees paid by the particular developer, which showed that the last “not-ready for inspection” fee was paid for March 2007.

Inspections by Interns and Summer Students

- During the interviews and in the examination of email correspondence, it was found that a number of inspections were carried out by summer students without the required qualifications as required by the Ontario Building Code after January 1, 2006. The City provided a list of inspections carried out by students in 2006, 2007 and 2008, to enable evaluation of those inspections done by students without the qualifications as required under the Ontario Building Code Act (i.e., unqualified interns and summer students).
- During some of the interviews it was alleged that the PMI had unqualified interns and summer students conduct inspections that must be completed by qualified inspectors. Further investigation of this matter found correspondence involving the Manager, Inspections, and the various Program Managers, Inspections in which they discussed the potential negative impacts on the City should this practice not be stopped and should it come to light.
- Interviews with the Chief Building Official, the Manager, Inspections, and the PMI confirmed that they were all aware that the practice, in essence, is illegal. The Chief Building Official justified the practice on the grounds that the requirements for timeliness of inspections prescribed by the Building Code plus the dearth of qualified staff had required this action.
- The Manager, Inspections provide spreadsheets listing all the inspections carried out by interns and summer students during 2006, 2007, and 2008.
- Based on correspondence and interviews, we found that several illegal inspections were credited to a qualified inspector in the system.
- The total illegal inspections are summarized in the following table.

Total Illegal Inspections				
	Year			TOTALS
	2006	2007	2008	
Illegal Inspections from MAP	756	537	705	1,998
Illegal Inspections Credited to Inspector	356	151	5	512
Total Illegal Inspections	1,112	688	710	2,510

- Illegal inspections by summer students comprised building inspections (including inspections of excavations, foundations, and framing, and progress

and final inspections); mechanical inspections (heating, ventilation, and air conditioning systems); and plumbing (water lines, sewage lines, and backwater prevention valves).

8. The Building Code Act (the "Act") requires inspectors, and where certain conditions are met, intern inspectors, to carry out building inspections. Persons who are neither inspectors nor intern inspectors are not permitted to carry out inspections of buildings.
9. Conducting inspections by unqualified inspectors are illegal.
10. Building Code Services should take the necessary steps to address potential issues arising from the illegal inspections by summer students.
11. Building Code Services should, on a per file basis, assess whether a further inspection and notice to the building owner is required.

Internet and Email Use

1. We reviewed the email and Internet use of the PMI. We found that he used both the corporate email system and Internet for non-business use and disregarded the City's Responsible Computing Policy and the City's Code of Conduct. As a City employee the computer misconduct (e.g., jokes, and inappropriate materials) is particularly serious. We determined that personal email usage was generally very high averaging 30%. The 30% is based on 5,687 non-business emails of the 19,250 emails reviewed. This employee's non-business related Internet hits amounted to 32% of his Internet traffic.
2. Some of the internal and external emails we reviewed and classified as "jokes" contained offensive and/or inappropriate material.
3. Based on our review, we conclude that the PMI's personal use of the Internet and email were in our opinion excessive and ultimately resulted in his spending less time performing duties for which the position is responsible for. It is also our opinion, based on our review, that staff at the Building Code Services Branch (BCSB) are not properly managing time and actions of some of their staff.
4. As stated in various other audits, IT Services need to enforce the Responsible Computing Policy at all levels of the organization. In addition, stronger measures are needed to address the level of jokes and inappropriate materials received and sent by City employees using the corporate email system. Based on the results of our review of the PMI Internet and emails, we expanded our scope to include the emails and Internet usage of the Building Inspection Unit's remaining managerial staff as well as one Building Official III. In these cases, we found examples of high personal use of both the corporate email system and Internet.

5. We also observed that a management employee had saved on his H drive (personal network drive) on June 6, 2008 a photograph of an office pool under filename: "*(name of builder)* Lottery.jpg". Per the photograph, it appears that 11 of this program manager's subordinates may have been speculating on the number of inspections a specific developer would fail from June 16 to 23, 2008. Given the role and responsibility of staff within BCSB, it is our opinion that this conduct is inappropriate and unprofessional.

3 STATUS OF IMPLEMENTATION OF 2009 AUDIT RECOMMENDATIONS

2009 Recommendation 1

That the City ensure Building Code Services staff maintains a Building Permit database and that it be reviewed at reasonable intervals to identify cases where the Partial Occupancy Permit had conditions, in order to permit the inspector to return and verify that the conditions have been corrected.

2009 Management Response

Management agrees with this recommendation.

From a Building Code standpoint, the scheduling of inspections is a function of the builder's readiness and is not in the Branch's realm of control. Per section 10.2 (1) of the Building Code Act, the responsibility to schedule the inspections rests clearly with the builder. It is the prerogative of the builder to determine how quickly they wish to complete their construction once the minimum standards for occupancy of an unfinished building have been met (i.e., partial occupancy).

With respect to Findings 1-6 (File No. 1), the Auditor has expressed a number of opinions which management would like to clarify as follows:

- Findings 1-6: The PMI directed the building official to issue an Order to Comply (OTC) on the assumption that the structure under construction was a foundation wall for a building. Following further investigation, the PMI determined that the construction was that of a fence, which does not require a building permit. The OTC was therefore lifted. The decision to lift the OTC was within the authority of the Code competent PMI. The Building Code Act does not provide authority to compel an owner to obtain a permit for future phases of a project nor is there authority to compel the owner to connect the fence to the yet to be built building. Further, the fence structure is not subject to Part 4 of the OBC.

An electronic 'bring forward system' will be integrated with enhancements to MAP to improve the tracking of inspections and to equip inspection staff with remote technological capability. The multi-phased four-year project commences in 2010 and will be completed in 2014.

Management Representation of the Status of Implementation of Recommendation 1 as of January 31, 2011

The scheduling of inspections is a function of the builder's readiness and is not in the branch's realm of control. It is the prerogative of the builder to determine how quickly he/she wishes to complete construction once the minimum standards for occupancy have been met.

In order to improve the efficiency of tracking inspections, an electronic "Bring Forward System" will be integrated within the enhancements to MAP. This ITS initiative has not yet begun. In addition, inspection staff will be equipped with remote technology capability. Currently there is a pilot project underway with some building officials testing technology in the field. This multi-phased project will be complete in 2014 as part of the corporate Mobile Workforce Solutions Project and is subject to ITS priorities and resourcing commitments.

Management: % complete 25%

OAG's Follow-up Audit Findings regarding Recommendation 1

To support the indication of status of implementation by Management, we requested information on the "Bring Forward System" and information on the Pilot Project.

Management indicated that two initiatives are underway in Building Code Services, namely the Mobility (Mobile Workforce Solutions or MWS) and the MAP project. The Mobility project falls under the corporately sponsored Service Ottawa initiative. The BCSB Mobility project is scheduled to start during the winter of 2011 with an anticipated completion date in 2014.

Management provided three files with information with respect to Service Ottawa and more specifically the Building Code Services Mobility project, the MWS and the MAP work: A copy of the Service Ottawa MWS Project Charter; the latest available MWS status report, and a Synopsis of findings from the BCSB 2010 Filed Mobile Pilot.

Management also provided a summary of justification for the Planning and Growth Management (PGM) department, under the leadership of BCS, to complete a business needs analysis and industry scan of potential solutions to potentially replace the reliance on the MAP application and solve current limitations in key areas such as mobile functionality, timelines, and consistency of data.

The purpose of the Mobility Component is to provide field staff with mobile capabilities that will enable them to improve timelines, accuracy of data capture, and consistency of paper and electronic records. At present, the BCSB has organized a large proportion of staff to align with the Mobile Workforce Solutions initiatives by the City.

The MAP component is on hold by ITS, but BCSB is working on a business needs and research analysis project to determine software that can meet their requirements. The MAP component is expected to be addressed by the PGM program using third-party software.

OAG: % complete

25%

Management Representation of Status of Implementation of Recommendation 1 as of November 16, 2011

Management agrees with the OAG's follow-up audit finding.

The "Bring Forward System" noted in the January update is being included as a new solution model being considered to replace the branch's overall operational dependency on MAP. The branch is targeting to have its internal business needs analysis completed by December 2011. Selecting and procuring a new software solution has not yet started as the branch has been subject to Service Ottawa and ITS priorities/resourcing commitments to date.

Building inspection staff are scheduled to be equipped with remote technology capabilities based on the implementation schedule set out in the Service Ottawa Mobile Workforce Solutions project. However, full functionality of the branch's anticipated business needs will not be realized until a new solution can be provisioned and implemented.

Management: % complete

25%

2009 Recommendation 2

That the City ensure Building Code Services Branch provides the Inspectors with a list of conditions that are not acceptable, in order to provide guidance to the Inspectors when deciding whether Partial Occupancy Permits can be issued. Alternatively, a quality control review of the Partial Occupancy Inspection Form could be done by the Program Manager, Building Inspections Unit or a senior inspector acting as his representative.

2009 Management Response

Management agrees with this recommendation.

With respect to Finding no. 5 (*File No. 3 - Subdivision*), it is noted that by the time the Final Occupancy Permit was issued, the deficiency had been addressed and although this incident was a single event, management will provide additional guidance to inspection staff. In addition, program managers are undertaking quality control reviews of a representative sample of inspection files on an ongoing basis.

Management Representation of the Status of Implementation of Recommendation 2 as of January 31, 2011

Management undertakes random quality control reviews of occupancy permits and has not encountered errors where conditions for occupancy are stated on occupancy permits contrary to Ontario Building Code requirements for occupancy. Building Officials are encouraged to discuss any unusual circumstances that would result in a condition for occupancy with their Program Managers prior to completing an occupancy permit. For clarification purposes, the occupancy permit form was redrafted in September 2009 to eliminate any confusion in completing the form.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 2

To support their assessment of the status of implementation of this recommendation, we requested records of the random quality control reviews.

Management provided a copy of the Draft Guideline for the Inspection File Review and Assessment Program, which they developed in 2009 and implemented in 2010. Management indicated that the quality control process involves random file review by the Program Managers to confirm that the Standard Operating Procedures are being followed. Management uses the results of the file reviews as part of the annual performance assessment. Management provided copies of the Inspection File Review and Assessment Procedures and the Inspection File Review Form. Information provided by Management indicates that 1.6% of files have been reviewed.

OAG: % complete *100%*

2009 Recommendation 3

That the City ensure Inspectors are made aware that Final Occupancy Permits should not have conditions, and that if the inspection reveals items where the Code is not met, that the Final Occupancy Permit not be issued until the conditions are remedied and lifted.

2009 Management Response

Management agrees with this recommendation.

To ensure clarity, management will provide additional instructions to inspection staff by the end of Q1 2010. In the audited case, the insertion on an inspection report "Ventilation Section 9.32 OBC" was actually a note to file for the benefit of the inspector and was not a 'condition'. This was not a standard practice of the Building Officials. The inspector has since left the City.

Management Representation of the Status of Implementation of Recommendation 3 as of January 31, 2011

Management provided additional instructions to inspection staff in Q1 2010. In addition, management undertakes random quality control reviews of inspection files and has not encountered errors where conditions for occupancy are stated on occupancy permits, contrary to the OBC requirements for occupancy. The audit made reference to a case where an inspector had noted on the final occupancy report "Ventilation per OBC section 9.32". This was not a condition of occupancy but rather a note to file for the benefit of the inspector for future reference. This was determined to be an isolated case. Building Officials are encouraged to discuss any unusual circumstance that would result in a condition for occupancy with their Program Managers prior to filling out the occupancy permit. For clarification purposes, the occupancy permit form was redrafted in September 2009 to eliminate any confusion in completing the form.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 3

To assess the status of implementation, we requested a copy of the instructions given to inspection staff; copy of the random quality control reviews; and a copy of the revised Occupancy Form.

Management indicated that the instructions given to inspection staff were done as part of a regular staff meeting, so there is no written record.

In addition to the Inspection File reviews, as noted above, Management provided a copy of the random quality control review guideline, in the form of the previously noted Draft Guidelines, as noted in the Status of Recommendation 2.

Management revised the Occupancy Permit form to differentiate that the Final Occupancy Permit does not have conditions, but allow the Partial Occupancy Permit to include conditions.

OAG: % complete *100%*

2009 Recommendation 4

That the City ensure Building Code Services Branch files have all the required documentation per the Policies, Guidelines and Standards document.

2009 Management Response

Management agrees with this recommendation.

With respect to Finding 7 (*File No. 3 - Subdivision*), a review of the files subject to the audit confirmed that with the exception of a very small number of files, all were complete as set out in the branch's Policies, Guidelines and Standards. Missing

documents have now been inserted in the files. Management will continue to monitor through quality control reviews on an ongoing basis to ensure that documentation within files is complete.

Management Representation of the Status of Implementation of Recommendation 4 as of January 31, 2011

A formalized approach to undertaking quality control reviews of building permit files was adopted in September 2009. The random review of building permit files is designed to assess the completeness of the file contents, ensuring the file contains the required documents and that these are complete.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 4

We requested documentation regarding the formalized quality control review process. Management provided a copy of the Draft Guideline for the Inspection File Review and Assessment Program, which they developed in 2009 and implemented in 2010. Management indicated that the quality control process involves random file review by the Program Managers to confirm that the Standard Operating Procedures are being followed. Management uses the results of the file reviews as part of the annual performance assessment. Management provided copies of the Inspection File Review and Assessment Procedures and the Inspection File Review Form.

OAG: % complete *100%*

2009 Recommendation 5

That the City require Inspectors to follow up on active building permit files if a reasonable amount of time has passed between inspections and the owner has not called in, with the purpose of ensuring that work is not continuing without the inspector having an opportunity for timely inspections. The City should define what will be considered to be a reasonable amount of time.

2009 Management Response

Management does not agree with this recommendation.

From a Building Code standpoint, the scheduling of inspections is a function of the builder's readiness and is not in the branch's realm of control. Per section 10.2 (1) of the Building Code Act, the responsibility to schedule the inspections rests clearly with the builder. It is the prerogative of the builder to determine how quickly they wish to complete their construction and to schedule the inspections accordingly.

The assumption of progress or status inspections for all permits irrespective of the permit holder's readiness would increase inspections resourcing requirements

significantly and could be misconstrued by the permit holder and the industry that the municipality has assumed statutory responsibilities vested in the permit holder / industry. This would confuse respective legislative roles and responsibilities.

The Building Code Services branch (BCS branch) has instituted other effective processes at minimal cost. In 2006, the BCS branch introduced the Refundable Inspection Fee as an incentive for the builder to complete the inspection process in a timelier manner and make more judicious use of the limited inspection resources. The Fee is reimbursed once the Final Occupancy Permit is issued. Since the introduction of the Refundable Inspection Fee, the timeframe between the start of construction to completion has decreased for low-rise residential construction. A large number of files reviewed in this audit pre-dated the introduction of the Refundable Inspection Fee in 2006.

Regarding Findings 1 to 4 (*File No. 4 - House*), and section 4.1.4 (in the detailed audit report) the Auditor has expressed a number of opinions regarding the regulatory requirements of the building subject of the audit. Management would like to clarify that the building permit was issued for a factory-built home. Building components that are designed and constructed in manufacturing plants in accordance to the applicable CSA standard are deemed to comply with the Code.

In this case, the foundation of the house was constructed outside the place of manufacture and was subject to the required inspections. The foundation inspection was undertaken December 10, 2004. The plumbing underground was inspected May 4th, 2005. However, the homeowner did not schedule the occupancy inspection due to their lack of familiarity with the processes and requirements. It is noted that the final plumbing and final mechanical inspections are normally undertaken at the time of the Final Occupancy inspection.

Management Representation of the Status of Implementation of Recommendation 5 as of January 31, 2011

This recommendation has not been implemented due to the reasons outlined in the management response above.

As stated previously, from a Building Code standpoint, the scheduling of inspections is a function of the builder's readiness and is not in the branch's realm of control. It is the prerogative of the builder to determine how quickly they wish to complete their construction and to schedule the inspections accordingly. Implementing this recommendation would increase inspections resourcing requirements significantly, undermine statutory responsibilities vested in the permit holder and confuse legislative roles and responsibilities.

The Refundable Inspection Fee implemented in 2006 offers an effective incentive for builders to complete the inspection process. Since its introduction, the timeframe between the start of construction to completion has decreased for low-rise residential construction. A large number of files reviewed in this audit pre-dated the introduction of the Refundable Inspection Fee in 2006.

Management: % complete *0%*

OAG's Follow-up Audit Findings regarding Recommendation 5

Although Management did not agree with this recommendation for the reasons noted, the implementation of the Mobile Workforce Solutions Project could remove what Management considers the key constraint to increasing monitoring beyond the mandatory inspections: resource capacity limits. Management has indicated that they will pursue more aggressive enforcement where feasible and when circumstances dictate a higher level of inspections and enforcement.

On this basis, we consider that Management has addressed this recommendation.

OAG: % complete *100%*

2009 Recommendation 6

That the City ensure that the primary responsibility of the Program Managers is to enforce the requirements of the Building Code. In addition, they should take into account the potential risks to the City resulting from their determinations if they decide to not follow the Policies, Guidelines and Standards. Any decision to deviate from the Policies, Guidelines and Standards should be made by the Chief Building Official, and not by the Manager involved or the Program Manager.

2009 Management Response

Management agrees with this recommendation.

BCS branch staff and program managers are fully qualified and aware of their responsibility to enforce the Building Code Act and the Ontario Building Code (OBC). Managers and program managers are required to evaluate the risks of decisions made with regard to each permit application and permit. It is common practice to elevate issues, concerns or questions to the Chief Building Official that have high-risk implications. Policies, guidelines and standards have built in flexibility as appropriate to ensure appropriate decision-making authority supporting effective operation of the branch.

Regarding Findings 5 and 6 (*File No. 4 – House*), and section 4.1.4.1 (in the detailed audit report), the Auditor has expressed a number of opinions regarding the regulatory requirements of the building subject of the audit. Management would like to clarify that the Code does not set specific timeframes for compliance, rather the Act and Code have assigned this task to the Building Official who will

determine what is appropriate based on the circumstances of each case and as is necessary to achieve compliance.

Management Representation of the Status of Implementation of Recommendation 6 as of January 31, 2011

As stated previously, BCS branch staff and Program Managers are fully qualified and aware of their responsibility to enforce the Building Code Act and the Ontario Building Code (OBC). They assess risk and elevate issues to the Chief Building Official as required. The CBO determines specific timeframes for compliance based on the circumstances of each case and as necessary to ensure statutory compliance.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 6

We requested information on the methods used to determine under what circumstances to elevate the issues to the CBO. As this recommendation was made in light of the Program Manager overriding the requirement for a Plan of Survey, Management has modified the Standard Operating Procedure to list those instances where a Plan of Survey must be provided.

OAG: % complete *100%*

2009 Recommendation 7

That the City ensure the Program Managers and Inspectors be clearly directed to follow the Policies, Guidelines and Standards, which provide for no exceptions in the handling of documentation in the files.

2009 Management Response

Management agrees with this recommendation.

Employees have been and will continue to be directed to follow branch Policies, Guidelines and Standards to enhance decision-making, ensure consistency of application and enforcement city-wide, despite operating out of different geographical areas, and to mitigate risk exposure.

These branch Policies, Guidelines and Standards assign specific and discretionary responsibilities to staff in the handling of documentation in the files. For example, the operational policy relating to the requirement by a permit holder to submit a Plan of Survey to confirm the location of a new foundation complies with the setbacks from a lot line is "as determined by the Building Inspector". This operational policy assigns discretion. Whereas the operational policy requiring the submission of final review letters from an engineer clearly specifies these must be submitted prior to the issuance of the final occupancy permit without exception.

A review of the sampling of the files subject to this audit revealed there were few instances where documentation was missing. Management will continue to monitor on an ongoing basis to ensure that documentation within files is complete.

With respect to Finding 8 (*File No. 4 - House*); Findings 1 and 2 (*File No. 5 - House*); and, Finding 2 (*Document Retention Requirements*), the suggestion that the exercise of discretion, in determining whether a Plan of Survey is required or not, is an inefficient use of resources, it should be noted that the alternative is to require every permit holder to obtain and submit a Plan of Survey prepared by an Ontario Land Surveyor (OLS) to confirm the location of the foundation as against the lot lines. This would needlessly increase the construction costs borne by the property owner (representing an additional \$1,000 - \$2,000 per survey) and is contrary to the principles of Service Excellence. The Building Inspector is quite capable of discerning whether a Plan of Survey is required or not based on a quick assessment of whether the set back requirements from the lot lines have been met.

Management Representation of the Status of Implementation of Recommendation 7 as of January 31, 2011

A formalized approach to undertaking quality control reviews of building permit files was adopted in September 2009. The random review of building permit files is designed to assess the completeness of the file contents, ensuring the file contains the required documents and that these are complete.

Management considers implementation of this recommendation to be complete.

Management: % complete 100%

OAG's Follow-up Audit Findings regarding Recommendation 7

We requested documentation regarding the formalized quality control review process. Management provided a copy of the Draft Guideline for the Inspection File Review and Assessment Program, which they developed in 2009 and implemented in 2010. Management indicated that the quality control process involves random file review by the Program Managers to confirm that the Standard Operating Procedures are being followed. Management uses the results of the file reviews as part of the annual performance assessment. Management provided copies of the Inspection File Review and Assessment Procedures and the Inspection File Review Form.

OAG: % complete 100%

2009 Recommendation 8

That the City ensure Partial Occupancy Permits be issued only when there are no outstanding safety issues.

2009 Management Response

Management agrees with this recommendation.

The OBC clearly sets out the conditions that must be addressed prior to allowing occupancy of an unfinished dwelling unit. Review of the audited files confirmed the approval to occupy an unfinished building was correct per the Building Code.

Regarding Findings 9 and 10 (*File No. 4 – House*) and section 4.1.4.3 (in the detailed audit report), the Auditor has expressed a number of opinions regarding the regulatory requirements of the building subject of the audit. Management would like to clarify that there are no Building Code requirements to have the basement insulation covered as a requirement of occupancy. There appears to be an inference that the basement walls are fire separations, which they are not. It should be noted that there are **no** Code requirements for fire separations within a single-family dwelling. Further, Section 3.1.5.12 does not apply to Part 9 buildings. The dwelling unit subject to this audit and recommendation was a Part 9 building.

The OBC minimum requirements for occupancy of an unfinished building were met despite the building still being under construction, thus the building was no longer illegally occupied once the partial occupancy (correct reference per OBC is “occupancy of an unfinished building”) was permitted.

Management Representation of the Status of Implementation of Recommendation 8 as of January 31, 2011

The OBC clearly sets out the conditions that must be addressed prior to allowing occupancy of an unfinished dwelling unit. Review of the audited files confirmed the approval to occupy an unfinished building was correct per the Building Code.

In addition, management undertakes random quality control reviews of occupancy permits. Building Officials are encouraged to discuss any unusual circumstances that would result in a condition for occupancy with their Program Managers prior to completing an occupancy permit. For clarification purposes, the occupancy permit form was redrafted in September 2009 to eliminate any confusion in completing the form.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG’s Follow-up Audit Findings regarding Recommendation 8

Management revised the Occupancy Permit form to differentiate that the Final Occupancy Permit does not have conditions, but allow the Partial Occupancy Permit to include conditions. Management provided a copy of the revised Occupancy Permit, which in our view clearly shows that conditions are only allowed in the Partial Occupancy permit.

Management provided a copy of the Draft Guideline for the Inspection File Review and Assessment Program, which they developed in 2009 and implemented in 2010.

OAG: % complete

100%

2009 Recommendation 9

That the City ensure the BCSB follow the Policies, Guidelines and Standards, which require the submission of an as-built survey for new housing prior to issuance of an Occupancy Permit. In this case, an as-built survey was not provided.

2009 Management Response

Management does not agree with this recommendation.

The branch Policies, Guidelines and Standards assign discretion to staff to determine whether the requirement for a Plan of Survey is applicable, or not, based on specific site conditions. For example, as in this case, the lot was 5.08 acres and based on the permit plans, the Building Official was able to determine that the foundation of the building was sufficiently set back from the lot lines to satisfy the minimum required set backs for front, side and back yards. In fact, the building was set back approximately 42 m from the front lot line [required set back was 15 m], 16 m in the east side yard [required 10 m], 60 m in the west side yard [required 10 m] and 63 m in the rear yard [required 15 m]. A plan of survey was not necessary to determine compliance.

As previously noted, the operational policy clearly affords discretionary authority to staff:

“It is the policy of the Building Services Branch to require the submission of a plan of survey prepared by an Ontario Land Surveyor for (i) new housing and (ii) additions to housing as determined by the Building Inspector.”

In the review of the sampling of files, there were no instances where a Plan of Survey was omitted contrary to the branch Policies, Guidelines and Standards.

As also noted in the response to Recommendation 7, requiring every permit holder to obtain and submit a Plan of Survey prepared by an Ontario Land Surveyor is inefficient, needlessly increases the construction costs borne by the property owner and runs counter to the principles of Service Excellence.

Management Representation of the Status of Implementation of Recommendation 9 as of January 31, 2011

This recommendation has not been implemented due to the reasons outlined in the management response above.

The branch Policies, Guidelines and Standards assign discretion to Building Officials to determine whether the requirement for a Plan of Survey is applicable, or not, based on specific site conditions. Management considers current practice to be sound, efficient and in compliance with statutory requirements and service excellence.

Management: % complete *0%*

OAG's Follow-up Audit Findings regarding Recommendation 9

Although Management did not agree with this recommendation, the Standard Operating Procedure has been revised to indicate the circumstances when a Plan of Survey is mandatory and where there is discretion on the part of the Inspector. Consequently, we consider that this recommendation has been resolved.

OAG: % complete *100%*

2009 Recommendation 10

That the City ensure the BCSB be instructed that its primary responsibility is the enforcement of the Building Code, and that BCSB should not be allowing construction to proceed without a permit.

2009 Management Response

Management agrees with this recommendation.

Building Officials are fully qualified and aware of their responsibility to enforce the Building Code Act and the OBC. With respect to Finding 2 (*File No. 6 – House*), the Auditor has expressed a number of opinions regarding the exercise of authority pursuant to the Building Code Act. Management would like to clarify that the property owner made the decision, independently, to commence construction without a permit. Review of the audited files confirmed that staff did not allow construction to proceed. Construction was halted at the direction of staff and a permit was obtained prior to the resumption of construction. The requirements of the Building Code Act were satisfied as a result of staff action.

Management Representation of the Status of Implementation of Recommendation 10 as of January 31, 2011

Building Officials are fully qualified and aware of their responsibility to enforce the Building Code Act and OBC. Enforcement of the Act and OBC will reflect the specific circumstances of each case as was noted in the cases audited, where Building Officials did not allow construction to proceed and required the property owner to obtain a permit prior to the resumption of construction.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 10

We stated in the report that the PMI had allowed the owner to pour the foundation without a permit. BCSB considers that since they stopped construction at that point, they did not allow construction to proceed.

OAG: % complete

100%

2009 Recommendation 11

That the City ensure a copy of the soils or geotechnical report is provided to the Building Code Services Branch at the same time that it is provided to Planning and Infrastructure Approvals.

2009 Management Response

Management agrees with this recommendation.

BCS branch will work with Development Review branches and the industry to establish a protocol for the acquisition of copies of subsurface soils investigation reports and updates prior to the submission of building permits for a new subdivision. This will be completed by end of Q2 2010.

Regarding Finding 2 (*File No. 2 - Subdivision*), Findings 1 to 9 (*Sensitive Soils*), and section 4.2 (in the detailed audit report) the Auditor has expressed opinions regarding the carriage of specific building permits of building constructed in an area of sensitive soils. Management would like to clarify that the PMA and PMI acted appropriately. Specifically,

- The PMA reviewed the subsurface soils investigation report upon receiving it and immediately alerted the PMI and the Building Code Engineer of the potential for additional actions the permit applicant/holder would be required to satisfy to address the nature of the soils conditions with regard to the new Code seismic requirements as per the branch's guideline on sensitive soils;
- The builder was advised immediately of the City's concerns and was directed to provide additional information to address the new permit applications, the permits just issued, and the buildings under construction. The PMA advised the builder of a need on their part to devise a plan to address, in a satisfactory manner, the impact of the subsurface conditions on the existing and future foundations;
- Staff met with the builder and their consultants to clarify the branch's requirements in terms of documentation in support of a Part 4 review of foundation designs for foundations located in areas of sensitive soils. Any remediation was undertaken and completed shortly thereafter. In addition, the builder integrated any special considerations, accounting for the condition of the sensitive soils, in the foundation design for the other

foundations. Permit applications for subsequent lots included the design considerations related to the sensitive soils and the new seismic requirements;

- The CBO is not authorized under the OBC to require the submission of subsurface soils investigation reports undertaken for a subdivision application review as a blanket requirement of a building permit application for a specific building lot. There must be a factual basis for requiring any technical reports from an applicant. As soils conditions vary from building lot to building lot, a blanket requirement is not legal or enforceable; and,
- There was no basis for the PMA to require a subsurface soils investigation report, as the PMA was not aware of any specific and special geotechnical subsurface conditions based on the previous phases of the development which had not exhibited any specific and special conditions. In addition, the site review memos provided by the soils consultant indicated the allowable soil bearing pressure was 100kPa. This design soil bearing capacity was within the prescriptive parameters of design of the Code for non-engineered foundations. There were no field conditions, which would have triggered the branch requirement for additional submission information prior to the issuance of the permits.

With regard to the Auditor's suggestion of relying on the soils engineering reports prepared in accordance with the *Geotechnical Investigation and Reporting Guidelines for Development Applications*, as adopted February 2008, BCS branch will certainly review these for identification of general and specific soils conditions, if any, and refer to these for purposes of assisting the permit applicant to understand the additional submission requirements related to the soils and seismic conditions per the branch's guidelines on sensitive soils.

It is noted that the primary purpose of the Geotechnical Investigation and Reporting Guidelines for Development Applications is to quantify the impact of the soils on the design and installation of the infrastructure. There is a direct relationship between the positioning of the foundations and that of the infrastructure such as the sewers and water services. For example, the high water table may affect the footing design and the location of the footings within the soil strata and this may affect the design and location of the services. Hence, the reason why these reports include a section on Foundation Design.

Management Representation of the Status of Implementation of Recommendation 11 as of January 31, 2011

The branch has worked with the Development Review branches to establish a protocol for the acquisition of copies of subsurface soils investigation reports and updates prior to the submission of building permits for new subdivisions. Copies of these reports are now provided to BCS at the same time that they are provided to the Development Review branches.

Management considers implementation of this recommendation to be complete.

Management: % complete ***100%***

OAG's Follow-up Audit Findings regarding Recommendation 11

Management provided a copy of an email from the Development Review branch manager with instructions to provide BCSB with a copy of the Geotechnical/Soils Report at the same time that it is provided to Planning and Infrastructure Approvals.

The email indicates that BCSB is now a mandatory recipient of the technical circulation packages for Plan of Subdivision, Director Approved Site Plan Control, Two Stage Site Plan Control, and Plan of Condominium - Vacant Lands and Common Elements. The affected procedures have been modified to include the process steps to provide revisions to the Manager of Permit Approvals, BCSB. The revisions will also be referenced in MAP. As well, IA staff were reminded that BCSB is to receive a copy of all Commence Work Notification letters, and a copy of the final approved geotechnical report.

OAG: % complete ***100%***

2009 Recommendation 12

As a number of files reviewed did not contain all the required documentation (i.e., copy of approved truss drawings, structural engineer's letter, as-built survey), that the City ensure that the requirements of the Building Code Act and the City's Policies, Guidelines and Standards be followed when reviewing files for completeness.

2009 Management Response

Management agrees with this recommendation.

The Building Code Act and the branch Policies, Guidelines and Standards assign specific and discretionary responsibilities to staff with respect to the handling of documentation in the files.

A review of the sampling of files subject to the audit confirmed there were few instances where documentation was missing. Management will monitor on an ongoing basis to ensure that documentation within files is complete.

With respect to Findings 1 to 5 (*File No. 8 – House*), and Findings 3 and 4 (*Document Retention Requirements*), management would like to clarify as follows:

- The branch guideline for requiring a soils report indicating the allowable soil bearing pressure was not implemented until September 2003. Prior to the introduction of the guideline, the practices of the former municipalities continued pending reviews and the standardization of standard operating procedures. Another practice of the former municipality was the undertaking of excavation inspections to evaluate the soils conditions. This practice was adopted in lieu of requiring a soils report of the soils of the building lot. As the Building Official determined the soils to be sufficient, there was no basis to require any additional evaluation to further confirm what was already established.

With respect to the Auditor's suggestion that the branch collect and maintain a complete database of residential construction within the City, management would like to clarify that the Building Code Act and OBC do not require the compilation of this information, nor is the permit applicant or permit holder required to provide this information. In fact, the Province's mandatory application form for a building or demolition permit does not provide for the capturing of this information.

Management Representation of the Status of Implementation of Recommendation 12 as of January 31, 2011

A formalized approach to undertaking quality control reviews of building permit files was adopted in September 2009. The random review of building permit files is designed to assess the completeness of the file contents, ensuring the file contains the required documents and that these are complete.

Management considers implementation of this recommendation to be complete.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 12

To support their assessment of the status of implementation of this recommendation, we requested records of the random quality control reviews.

Management provided a copy of the Draft Guideline for the Inspection File Review and Assessment Program, which they developed in 2009 and implemented in 2010. Management indicated that the quality control process involves random file review by the Program Managers to confirm that the Standard Operating Procedures are being followed. Management uses the results of the file reviews as part of the annual performance assessment. Management provided copies of the Inspection File Review and Assessment Procedures and the Inspection File Review Form. Information provided by Management indicates that 1.6% of files have been reviewed.

OAG: % complete **100%**

2009 Recommendation 13

As in one of the files reviewed the structural engineer for the builder identified some deficiencies in the foundation and foundation walls, but did not re-inspect them to confirm that the deficiencies had been corrected, that the City ensure that inspectors refrain from signing off without the engineers confirmation that the structures are being built in accordance with the design. Failure to do so results in unwarranted transference of liability from the builder to the City.

2009 Management Response

Management does not agree with this recommendation. It is not the building official's role to give directions on how the consulting engineer is to discharge his/her responsibilities. Providing directions would effectively transfer the assumption of liability for the design of the reinforced concrete foundations from the qualified designer, the consulting engineer, to the City. It is the building official's role to accept the engineering reports provided on site by the permit holder and to review the information for the purpose of confirming the reports reflect the intended Part 4 design. If deficiencies in the engineer's reports are identified, the building official will request further engineering reports. The consulting engineer, in performing field reviews, accepts responsibility for their design as constructed. The consulting engineer is requested by the permit holder to perform any re-inspections where deficiencies have been observed by the building official.

Contrary to the opinion expressed in Finding 4 (*File No. 2 - Subdivision*), and Findings 2 and 3 (*Structural Field Review*), the City must not assume responsibility and liability that rests squarely with the professional by giving direction, as suggested above, as to how the professional engineer is to manage their responsibility. BCS branch's obligation is to ensure Part 4 design under the OBC for Part 9 buildings or parts thereof, that fall outside the prescriptive standards set out in Part 9, by requiring the design to be carried out by a qualified designer, which the branch has deemed to be a professional engineer. The building official does not manage the permit holder's consultants. Branch Policies, Guidelines and Standards require that the consulting engineer provide the building official the final letter of sign-off prior to the issuance of the Final Occupancy Permit.

The final letter of sign-off by the consulting engineer will include statements of the deficiencies noted, the remedial work completed to address the deficiencies and acceptance of the remedial work. The consultant engineer thereby assumes responsibility and liability for the work undertaken. The branch's Policies, Guidelines and Standards reflect this delineation of responsibility and risk assumption.

Management Representation of the Status of Implementation of Recommendation 13 as of January 31, 2011

The role of the Building Officials and the role of the consulting engineer remain distinct and properly defined as described in the original management response.

The building official does not manage the permit holder's consultants. Branch Policies, Guidelines and Standards require that the consulting engineer provide the building official the final letter of sign-off prior to the issuance of the Final Occupancy Permit.

This reflects the appropriate delineation of responsibility and risk assumption. Such letter of sign-off includes deficiencies noted, remedial work completed and acceptance of remedial work.

As per the management response, no further action is required.

Management: % complete *0%*

OAG's Follow-up Audit Findings regarding Recommendation 13

This recommendation was resolved partially by the fact that the Engineer provides a Site Review Certificate at the conclusion of the project, certifying that the elements were constructed in general conformance with the design drawings. We agree that the Inspector should not manage the permit holder's consultants.

OAG: % complete *100%*

2009 Recommendation 14

That the City ensure Inspectors exercise their responsibility and right to demand uncovering of work that they have not been able to inspect due to premature cover-up by the builder; and, that Inspectors are warned that inspection reports done on a site unseen basis are negligent and that they may be subject to disciplinary action.

2009 Management Response

Management agrees with this recommendation.

The Building Code Act provides for a number of tools and methods for determining compliance with the OBC. In this instance, other means by which the construction could be inspected without destructive investigation were pursued and the building official determined the underground plumbing to be in compliance. When the incidents were brought to the attention of management, the building official was directed to 'fail' such inspections and to use the tools available to determine compliance where construction has been covered prematurely, as appropriate.

In regards to Findings 1 to 4 (*Inspection Passed Site Unseen*), the building official duly reported he had not viewed the construction but had nevertheless passed it based on above surface observations and knowledge of the work throughout this subdivision of the licensed trade.

Management Representation of the Status of Implementation of Recommendation 14 as of January 31, 2011

This was an isolated event. The procedures were clarified with the Building Official. Furthermore, management has reviewed the Standard Operating Procedures with all Building Officials to clarify the responsibilities.

Management considers implementation of this recommendation to be complete.

Management: % complete 100%

OAG's Follow-up Audit Findings regarding Recommendation 14

Management indicated that they have carried out the following work to inspect the underground plumbing at the locations identified: All underground plumbing that was covered up prior to an inspection was dealt with as follows:

1. They were videoed;
2. The inspector witnessed the video;
3. The underground plumbing was air tested; and,
4. The inspector witnessed the air test.

The above process was followed with the understanding that if the video revealed a problem or the air test was not able to hold, then the next step was to recommend to the CBO that orders to uncover the plumbing or parts thereof be issued.

The CBO may require construction to be uncovered only if there is knowledge of a code infraction. Thus, if any of the videos had indicated Code deficiencies, then the CBO would have had legal basis to require the systems to be uncovered.

In addition, Management discussed the matter with the Inspector.

Clarification with the Building Official was done verbally.

OAG: % complete 100%

2009 Recommendation 15

That the City ensure that the Inspectors charge all developers for all the inspection visits where the contractor was not ready in order that the City can obtain reimbursement for unnecessary inspections.

2009 Management Response

Management agrees with this recommendation.

The Refundable Inspection Fee was introduced as an incentive for the industry to complete the inspection process in a timelier manner and make more judicious use of limited inspection resources. The Fee is reimbursed once the Final Occupancy Permit is issued. The Fee is reduced where a builder has called for an inspection prematurely, has failed to give proper notice of cancellation, or has occasioned unnecessary repeat inspections and the Building Official's time has been wasted. A review of the audited files has determined the charges were collected at the final occupancy permit per the branch's Policies, Guidelines and Standards.

The branch's Policies, Guidelines and Standards related to Refundable Inspection Fees were revisited with the building officials to ensure clarity and consistency of application.

Management Representation of the Status of Implementation of Recommendation 15 as of January 31, 2011

The Standard Operating Procedures were clarified with the Building Official. Charges were collected prior to the issuance of the final occupancy permits, as per the Building By-law.

Management considers implementation of this recommendation to be complete.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 15

Management indicated that they have prepared a spreadsheet compiled to capture the list of "not ready inspections", which was sent to IT to update the MAP records, in order to confirm that the Refundable Inspection Fee be updated to reflect the record.

In addition, the procedures were reviewed to instruct the Building Official about the need to check the corresponding box in the form, since this resulted in the mistaken record.

OAG: % complete **100%**

2009 Recommendation 16

That the City charge the developer the Refundable Inspection Fee applicable under Section 39 of the City By-law, including the uncharged fees noted in this audit report.

2009 Management Response

Management agrees with this recommendation.

The branch has processed and will continue to process any draw downs, as applicable, and in accordance with the Building By-law. As the timing of completion of construction is in the control of the permit holder as is the closure of the permit files, completion of the implementation is not identifiable.

Management Representation of the Status of Implementation of Recommendation 16 as of January 31, 2011

The drawdown fees as noted by the Auditor General's Office are not reconciled until all related building permit inspections are complete and the Building Official is preparing to issue the final occupancy permit. The files have been reconciled and the drawdowns were processed, as required.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 16

Based on the response to Recommendation 15, it is possible to confirm that this recommendation has been implemented as well.

OAG: % complete *100%*

2009 Recommendation 17

That the City make qualification under the Building Code a condition of employment for summer students conducting building inspections.

2009 Management Response

Management agrees with this recommendation.

Following 2008, the branch no longer recruits students to undertake completion checks as the branch's Internship Program has now produced sufficient graduates to undertake this work.

Should BCS branch resume employing construction / engineering / architectural students to undertake site completion checks of exterior conditions that are not related to the minimum building standards for health and safety (for example: verifying that the siding is complete, all openings have been caulked, the light fixtures at the entrances have been installed, the vent covers have been installed, the masonry weep holes are clear of debris and whether the ground is sloping away from the foundation), the applicable job descriptions will be revised to require students to be recognized by the Province as an "Inspector" per the Building Code Act and Code.

Prior to 2006, Building Inspectors and students were not required to be qualified by the Province to undertake any inspections. Notwithstanding this absence of a province-wide minimum standard for Code knowledge, and to mitigate risk associated with undertaking inspections, the City ensured proficiency of its Building Inspectors through extensive training, field experience and by requiring Building Inspectors to be certified as Building Officials under a program established by the Ontario Building Officials Association.

Prior to 2006, the branch relied on construction / engineering / architectural students to undertake the exterior completion checks as part of the final occupancy inspections, status inspections and inspections of components of the building or systems such as final HVAC and final interior inspections, depending on the students' experience and training. The majority of the students who conducted the exterior completion checks in 2006, 2007 and 2008 were employed prior to 2006 and had undertaken the same exterior completion checks and 'other' inspections competently prior to the new provincial requirements.

The branch also had relied upon consultants, who were retired building inspectors, to assist in dealing with the peak workloads experienced May to November each year. Due to the new legislative requirements for qualifications, the consultants opted to discontinue their services. This drop in available resources, together with a vacancy rate of 25% in 2006, and a continued construction boom, necessitated the decision to continue to use students to undertake exterior completion checks despite their not having fully established their qualifications with the Province.

Management considered its options and believed that the continuation of the program using students was in the best interest of new homeowners, the building industry and the City. Not undertaking the completion checks, or reassigning the completion checks to the qualified Building *Inspectors* that would have drawn more experienced *Inspector* resources away from the more critical inspections, would have caused a considerable reduction in service delivery to new homeowners and the industry. The options were untenable.

The Chief Building Official did confirm awareness of the operational decision to continue the practice and had advised the Auditor that the risk was **low**, and that although these completion checks were not crucial for health and safety, they were nevertheless essential for providing a better level of service by ensuring construction was completed within three (3) years of permit issuance.

The operational decision to continue the program was made with full regard to all factors and risks. To mitigate any risk, the students were provided with extensive training to ensure their competence in undertaking the completion checks, and were supervised by the PMIs as well as coached by the Building *Inspectors* who had carriage of the permit files (referred to as the Building *Inspector* of record).

It is noted that meeting the qualification requirements set out by the Ministry of Municipal Affairs and Housing, does not make one an inspector. A prudent municipality would ensure the newly qualified “Inspector” received extensive training, in and out of the field, in addition to being coached by an experienced *Inspector*. Students were also instructed to only perform exterior completion checks. The students were further encouraged to take the Ministry exams and file their information with the Province such that over the summer(s), they could achieve the required level of qualification required by the Province. By 2008, most of the students were qualified as “Inspectors” per the OBC.

The exterior completion checks performed by the students represented a small percentage (0.58%) of the total of 281,614 inspections undertaken by the branch over a three (3) year period. The exterior completion checks undertaken by the students involved elective inspections triggered by the Building By-law and were components of the final occupancy inspections (refer to Appendix 2 for a description of all inspections).

The practice of retaining students to undertake exterior completion checks and closing permit files was essential to maintain excellence in service delivery, was unavoidable due to lack of resources (25% vacancy rate), and was pursued only after ensuring public safety would not be compromised. The practice was discontinued after 2008 in view of the BCS branch’s lower vacancy rate.

Regarding Findings 1 to 11 (*Inspections by Interns and Summer Students*), and Section 4.7 (in the detailed audit report) management would like to clarify as follows:

- There were no misrepresentations. The email correspondence involving Building Inspections management expressed concerns as to the accuracy, or lack thereof, of the MAP data on inspections activities and the glitch in the MAP process that required certain fields to be checked off (✓) in order to close the file and trigger MAP to produce a standard letter to the permit holder confirming issuance of the final occupancy permit and the amount of refundable inspection fees to be remitted, as applicable.
- Management was noting that the person who processed the file and updated MAP to trigger the letter, would automatically be credited the inspections and be the signatory on the form letter (hence the expression, the last person to touch the [MAP] file was credited the inspections).
- In the correspondence, management debated whether it was more appropriate to ensure MAP was accurate versus ensuring the letter featured as the signatory, the Building *Inspector* of record, instead of the student who in closing the file and updating MAP, became the signatory of the letter. One PMI found a solution to the glitch by having the student insert in MAP the name of the Building *Inspector* of record in the final inspections fields and inserting in the MAP Note field the actual person’s name, who completed the final inspection, in an attempt to ensure veracity of the MAP information.

- The Auditor's statement that "the system was used deliberately to show a legal inspection in place of an illegal inspection" is contradicted by the facts. Had that been the intent, no note would have been entered in MAP. The notation in MAP denotes honesty.
- In its present state of development, MAP requires an overhaul in order for the system to function as an information management system. Management is aware of this and relies on the actual official business records, the building permit files, as the source of information whether for management purposes, fact verification, court processes (prosecution and defending claims), etc. The MAP data is only relied upon for purposes of measuring metrics, such as the number of permits issued, inspections undertaken, etc, with a full understanding of its strengths and weaknesses.
- The Auditor has confirmed in Section 4.7 (in the detailed audit report) that the data is not reliable, that it is incorrect 25% of the time in relation to the completion checks (Table 1), 40% in relation to the other inspections (Table 2), and 20% for the entire sample (Table 3) of the entries. This is why management does not rely on the MAP data as a management tool and has made the development of the Inspections Tracking Application in MAP a priority in order to transform the database system into a useful and effective management tool.

Building Inspections management are conducting regular file audits to monitor performance, ensure compliance with established policies, guidelines and standards and to identify training and development needs.

Management Representation of the Status of Implementation of Recommendation 17 as of January 31, 2011

Only students who have obtained the provincial qualifications for inspecting building elements of a house will be assigned to undertake completion checks.

Management considers implementation of this recommendation to be complete.

Management: % complete ***100%***

OAG's Follow-up Audit Findings regarding Recommendation 17

Management confirmed that students have not done inspections since 2009, and provided a report of inspections for the period July - August 2010 to confirm.

OAG: % complete ***100%***

2009 Recommendation 18

That the City develop an Action Plan to deal with all the illegal inspections completed by Building Code Services Branch, including inspections identified in the audit and any other that may exist. The Action Plan should consider notification of the property owners and steps to ensure that corrective measures are taken.

2009 Management Response

Management agrees with this recommendation.

This section of the audit deals with inspections performed by students. Students undertook exterior completion checks as part of an established program as well as ‘other’ inspections. The following table (Table 4 of the full audit report) sets out management’s results of the investigation based on the detailed review of actual official business records, the building permit files and MAP database for the metrics.

Total number of inspections performed by students 2006, 2007 and 2008

	2006	2007	2008	TOTALS
Final exterior completion checks				
• Performed as a qualified Inspector	85	676	833	1594
• Performed without provincial qualifications	986	307	43	1336
Other inspections (Building, Mechanical and Plumbing)				
• Performed as a qualified Inspector	625	5362	2819	8806
• Performed without provincial qualifications	231	10	72	313
Total inspections by students	1,927	6,355	3,767	12,049
Total Building Code inspections by BCS branch	85,335	90,698	105,581	281,614

- Excludes pools (all years)
- Excludes pre-permit inspections (2008)

In summary, of the total inspections undertaken by students during 2006, 2007 and 2008, only 1,649 inspections were performed by students lacking the requisite provincial qualifications. The majority of these inspections were exterior completion checks. This represents 0.58% of all inspections undertaken by the BCS branch during the three years.

The following response reflects the detailed analysis of the two distinct categories of inspections.

Completion checks:

With respect to the exterior completion checks and the information provided in response to Recommendation 17 above, BCS branch has reviewed the work and has determined that there is no need or basis for duplicating the completion checks that were properly undertaken by well-trained construction /engineering /architectural students. The training and development of the students far exceeded the minimum standards set out by the Province for undertaking completion checks. The decision to continue to use students, following a change in the Act, was necessitated by the peak workloads associated with the continuing construction boom and the inability to recruit pre-qualified inspectors.

Trained and experienced students viewed the following building elements and conditions to complete exterior checks necessary for the issuance of the final occupancy permits: visual checks to confirm positive drainage from the foundation walls, completion of the siding and fascia, exterior caulking of openings in the building envelope, the presence of guardrails on any decks, etc. Students were supervised and reported to the Building *Inspector* of record any observations of scope outside their training, which would require an inspection for Code compliance.

In view of the Auditor's concern, BCS branch contacted Tarion Corporation to determine whether any of the above referenced elements were the subject of any registered claims. Tarion has confirmed that there were no claims registered for any of the elements viewed as complete by the students from 2006 to 2008.

'Other' inspections:

With respect to the 'other' inspections that entailed components of inspections triggered by the OBC, such as Building, Mechanical and Plumbing, the following information is provided:

- 'Other' inspections involved the inspection of components of the interior of the building such as a review of the vapour barrier for one room (Building), or verifying the location and discharges of required exhaust fans (mostly bathroom exhaust fans) (Mechanical) and witnessing the air pressure test of the plumbing system (Plumbing).

- The Audit revealed that student *Inspectors* performed a total of 8,806 ‘other’ inspections over the three-year period. Management was not aware student *Inspectors* were performing these ‘other’ inspections despite the formal training program that clearly outlined the expectations of workloads, and the fact the PMIs and/or the Building *Inspector* of record were reviewing their inspection reports. It is now clear that additional tools were required to ensure compliance with the branch’s directives.
- These inspections, while performed without the approbation of management, were legal in accordance with the Building Code as these inspections were limited to components of the inspection process which did “*not constitute a substantial part of the plans review or inspection on a project,*” in accordance with the Building Code. A detailed review of 50 permit files containing ‘other’ inspections performed by student “*Inspectors*” confirmed that these inspections were limited to only components of the inspection process. The complete listing of all the inspections for low rise residential housing comprising of the inspection process is appended to this response – refer to Appendix 2.
- Management’s review of permit files identified 313 of the 9119 (3.4%) ‘other’ inspections undertaken by a student that was not an “*Inspector*” per the OBC. The remainder of the inspections were completed in compliance with the OBC.
- Management only became aware of these ‘other’ inspections performed by students on May 18, 2010 following the disclosure by the Auditor of the specific building permit files that founded the Auditor’s contentions.
- Up to that point in time, the Auditor’s source for his findings was solely the MAP data. Management had identified concerns as to the accuracy and reliability of the MAP data to the Auditor in September 2009 as part of the fact verification process. Management provided specific examples of the disconnect between MAP entries and the actual official business records, the building permit files. The Auditor first responded to these concerns in April 2010.
- Prior to the disclosure by the Auditor, management had initiated its own review of permit files to locate the inspections, other than the exterior completion checks that had apparently been undertaken by students that were not an “*Inspector*”. Management reviewed over 300 permit files and was not able to locate any ‘other’ inspections undertaken by a student that was not an “*Inspector.*” The findings in fact supported the contention that the MAP data was flawed and unreliable.
- At a May 14, 2010 meeting, the Auditor clarified his concerns regarding the ‘other’ inspections (other than the completion checks which management was

aware of), and as a result, management retrieved specific files to investigate the 'other' inspection (Building, Mechanical and Plumbing).

- On May 19, 2010, management alerted the Auditor that some of the files required further review and that management would report back as to its factual findings on May 21. A legal opinion for the benefit of the Auditor was sought on May 20, 2010. The results of the scrutiny of the official business records were provided to the Auditor at a meeting on May 21, 2010.
- Disclosure by the CBO was timely and in earnest. Management has shared whatever information was available at the time as requested. The CBO needed to rely on factual evidence based on the official business records, the building permit files, before drawing any conclusions.
- It is noted that the review of "Eight Specific Building Service Files" involved over 700 permit files. The branch requested the Auditor identify the permit files that supported the findings in order to enable the fact-finding review and to comment on the Auditor's interpretations of building regulatory processes and building code standards. Close to 200 files were identified by the Auditor, but none related to the inspections undertaken by students.
- Review of the permit file records did reveal that in some of the cases, the inspections were performed to assist the qualified Building *Inspector* who had carriage of the permit file. Students were coached by the Building Inspector as to what to observe and were instructed that if a performance standard was satisfied, to proceed to advise the builder that he/she could proceed with construction.
- Management will review the associated permit files and take appropriate action based on the findings. It is noted that if a deficiency was missed as a result of these inspections, these would have been brought to the attention of the builder, who is responsible for building in accordance with the OBC, or to the Tarion Corporation under the New Home Warranty Act. Management will verify with Tarion whether there have been any deficiencies identified as a result of these inspections. Presently, there has been no indication that these inspections have resulted in deficiencies being missed.
- Further, any determination as to whether these 'other' inspections were performed in accordance with the OBC, or not, should be made by an appropriately qualified and Code competent person, informed with the actual documentation of each permit file. At the time of this audit, the Auditor had only reviewed the documentation of approximately 150 permit files, commencing in May 2010, each requiring further review with appropriate staff in order to confirm the facts.

With respect to Section 4.7, management would like to clarify as follows:

The Building Code requires the following for a person to be appointed as an "*Inspector*":

- To have successfully completed the examination program administered or authorized by the Ministry relating to the knowledge of the Act and the Code in the categories of qualifications set out in Table 3.5.2.1 that correspond to the type of buildings the Inspector will plan review and/or inspect; and,
- To have filed the requisite information with the Ministry.

Thus, an *Inspector* must have successfully completed the examination of the category “House” in order to be able to inspect a detached house or semi-detached house including the building’s systems and any ancillary building. To be able to inspect a substantial part or all of a plumbing system of a ‘House,’ the *Inspector* must also have successfully completed the examination covering Plumbing-House, etc. Table 3.5.2.1 of the Code sets out the matrix to follow to ensure an *Inspector* is qualified to inspect what they are tasked to inspect.

There is, however, an exception. *Note (1) to Table 3.5.2.1 of the Code permits an Inspector qualified in one category of qualifications to carry out plans review and inspections in another category where to do so does not constitute a substantial part of the plans review or inspection of any project.*

Thus, if a student was a qualified *Inspector* for ‘House,’ and many were in 2007 and 2008, he or she was able to inspect components of the building, including, confirming the location of footing pads prior to the pouring of the basement slab, and inspecting the rough-in of the plumbing or witnessing the air test prior to occupancy. A number of students had attained the requisite qualification for ‘House’ when they undertook the ‘other’ inspections of components of the building (Table 2) and therefore, these ‘other’ inspections were performed by “*Inspectors*” in accordance with the OBC.

In Section 4.7 of the detailed audit report, the Auditor refers to four files where a student undertook “Framing or Backfill (Foundation) inspections. Closer scrutiny of these inspections revealed: that two of the four inspections involved confirming the location of footing pads prior to the pouring of the basement slab; one involved the measuring the depth of an excavation for sono tubes for the piers of a sundeck; and the fourth inspection involved the review of the framing of a refab shed. Each of these inspections were performed under the guidance of the Building *Inspector* of record, where required.

Management Representation of the Status of Implementation of Recommendation 18 as of January 31, 2011

In terms of an action plan, Management has conducted a comprehensive review of the inspection files in question and determined that there is no basis for duplicating the completion checks. The training and development of the students far exceeds the minimum standards as set out by the Province. With regards to other inspections, management reviewed the 313 files identified and found no issues that would require further action.

Management considers implementation of this recommendation to be complete.

Management: % complete ***100%***

OAG's Follow-up Audit Findings regarding Recommendation 18

Management provided documentation on the methodology and results of their random review of inspections by students who lacked the required qualifications. They found seven files that required further investigation, and they found that in these files the students had performed inspections outside of their authorized scope of work. In addition, Management inspected 97 inspections that related to mechanical, plumbing and framing; for these files, Management confirmed that the inspections were re-inspected by an Inspector, or there was a mislabelling of the file due to MAP assigning the file to the student when the file was handled by the student for final occupancy.

OAG: % complete ***100%***

2009 Recommendation 19

That the City review the conduct of staff who violated the Ontario Building Code by authorizing the illegal inspections undertaken by unqualified inspectors, and take appropriate disciplinary action.

2009 Management Response

Management agrees with this recommendation.

Management has reviewed the decision to continue a longstanding practice that addressed a significant shortfall in resource allocation from 2006 - 2008, as well as the outcomes of that decision. At the time, the practice was essential to maintain excellence in service delivery, was unavoidable due to lack of resources, and was pursued only after ensuring public safety would not be compromised. A risk assessment indicated the risk was low for the homeowners and the City. The practice was discontinued as soon as the Interns were trained and qualified. No further action is required.

In hindsight, management could have discontinued the final exterior completion checks, which would have necessitated striking out or suspending the By-law section. However, management was concerned with the detrimental effects of not continuing the program, specifically, having open files with unresolved Code issues, incomplete construction three years after a permit has been issued, and an increase in the number of disputes between the builders and the purchasers involving the BCS branch. Further, a decision to strike out the related By-law sections would have only been required for less than 1% of inspections and was part of a transition process that was complete within three years.

Management was also concerned with the impact of a sudden drop of service level. An operational decision was made to ensure excellent service. The CBO regrets not advising the DCM and Council of the situation in 2006.

Management Representation of the Status of Implementation of Recommendation 19 as of January 31, 2011

Management held discussions with staff to review the decision and outcomes of continuing a longstanding practice that addressed a significant shortfall in resource allocation from 2006 - 2008. This review concluded that the actions of staff were made with integrity and deemed practical under the circumstances. Public safety was not compromised, and the risk to homeowners and the City was low. The practice was discontinued as soon as the Interns were trained and qualified.

For the reasons noted above, it was determined that staff acted in the best interest of all stakeholders and no formal disciplinary action was taken.

Management considers implementation of this recommendation to be complete.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 19

We requested a copy of the records of discussion with staff regarding this practice. However, Management indicated that the matter was dealt with verbally and there is no written record. Management provided a copy of the internal communication with Management regarding the matter, which was sent to the Provincial Ministry for information.

OAG: % complete *100%*

2009 Recommendation 20

That the City take appropriate disciplinary action regarding the PMI and others involved with inappropriate use of the City's Internet and email services.

2009 Management Response

Management agrees with this recommendation.

Appropriate disciplinary action has been implemented, a communiqué has been delivered to all branch staff re-affirming the expectations of proper computer use under the City's Responsible Computing Policy and all BCS branch employees received an in-depth briefing of the responsible computing policy from IT Services, in Q4 2009.

Regarding Findings 1 to 4 (*Internet and Email Use*) and section 4.9.1 (in the detailed audit report), management would like to clarify that a detailed examination of the information provided by the Auditor revealed that other than one case where the use and storage of emails by one employee was of concern, the use of the Internet and emails by the branch management was in keeping with the City's Responsible Computing Policy. See management's response to Recommendation 22.

Management Representation of the Status of Implementation of Recommendation 20 as of January 31, 2011

Appropriate disciplinary action has been implemented, a communiqué was delivered to all branch staff re-affirming the expectations of proper computer use under the City's Responsible Computing Policy and all BCS branch employees received an in-depth briefing of the Responsible Computing Policy from IT Services, in Q4 2009.

Management considers implementation of this recommendation to be complete.

Management: % complete 100%

OAG's Follow-up Audit Findings regarding Recommendation 20

Management provided a copy of the letter to the PMI in question, the email to staff regarding the City's Responsible Computing Policy, and the briefing provide to staff in Q4 2009.

OAG: % complete 100%

2009 Recommendation 21

That the City ensure all employees abide by the Corporate Responsible Computing Policy through active and documented monitoring practices.

2009 Management Response

Management agrees with this recommendation.

Currently, the ITS department and Labour Relations conduct two Internet usage audits per year that examine the Internet use of 50 employees for each audit cycle. Awareness reminders regarding the City's Responsible Computing Policy are provided twice weekly to all staff with network accounts. City managers are responsible for monitoring their staff and can, where warranted, request technology usage reports and can work with Labour Relations when interpreting certain data sets.

All BCS branch employees received an in-depth briefing of the Responsible Computing Policy from ITS in Q4 2009, in addition to a memo from the Director of Building Code Services and Chief Building Official in Q1 2010, reminding all staff to comply with the Responsible Computing Policy.

Management Representation of the Status of Implementation of Recommendation 21 as of January 31, 2011

All BCS branch employees received an in-depth briefing of the Responsible Computing Policy from ITS in Q4 2009, in addition to a memo from the Director of Building Code Services and Chief Building Official in Q1 2010, reminding all staff to comply with the Responsible Computing Policy.

Management considers implementation of this recommendation to be complete.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 21

Management provided a copy of the briefing provide to staff in Q4 2009.

OAG: % complete **100%**

2009 Recommendation 22

Given the level of personal use of Internet and email, that the City perform a review of the staffing requirements in Building Code Services Branch to determine if all existing staff are required.

2009 Management Response

Management does not agree with this recommendation.

Overall there were no substantiated performance issues or evidence of wasted productivity that would warrant such a recommendation.

It is noted that this recommendation contradicts the 2006 Audit of Building Services which stated "Insufficient resources exist within BSB to continue to effectively manage workload".

Internet Usage

Many sites result in IP address tags. Visiting certain businesses' websites can generate up to 40 "non-business hits" using the criteria defined by this audit. It is conjecture to conclude that BCS branch program managers were using the Internet inappropriately from the kind of analysis conducted. Reliance on the raw data is not sufficient to clearly and accurately discern intent of use. One would have to sit with an employee at his or her computer to correctly ascertain and categorize the usage. For example, in one case a program manager had been listening to a news piece on a particular building site in preparation for responding to media enquiries and accidentally left his computer running all through the weekend with the browser still open to cbc.ca. This generated a very large number of "hits" which were included in the count as personal use.

The City's Responsible Computing Policy does not disallow Internet streaming for local media. In a recent presentation to all BCS branch employees an IT Services manager specifically told staff that listening or visiting local media sites is permitted as long as network bandwidth capacity is not impacted.

Emails

The photograph found of an "office pool" was taken by an employee. The program manager will download to his personal drive photographs from City-owned cameras whenever a building official is reassigned with the intent to review these, cull the inventory, and properly store the pictures in the branch's electronic library at a later time. The program manager had not yet scrutinized the photos to determine their relevancy for work. Since the time of this audit the photograph was removed from the program manager's drive. There was no lottery as is implied in the audit. The incident was related to several building officials' unprecedented frustration over a builder's abuse of the inspection process. Eventually the situation was resolved as meetings were held with the builder's representatives to discuss the performance issues. The board was never visible to the general public and was up two to three days at most. Once the program manager noticed the board it was removed. The employees have since been made aware of the inappropriateness of the incident and have been reminded of the Code of Conduct to which they are held.

Since this audit, all BCS branch staff and management have received training on the City's Responsible Computing Policy. In addition, a memo regarding appropriate use of email and Internet use that included a reminder of the Code of Conduct was sent to all staff from the Director/Chief Building Official. In addition, the Director/Chief Building Official has also requested that IT Services conduct periodic reviews of Internet use within the branch.

Please see the briefing note (Appendix 1) dated 25 January 2010 submitted from IT Services to the City Manager regarding the ability to use the City's Internet filtering service for interpreting Internet usage.

Management Representation of the Status of Implementation of Recommendation 22 as of January 31, 2011

As has been explained in the management response, overall there were no substantiated performance issues or evidence of wasted productivity related to email or Internet usage. Internet usage data must be analyzed within the context summarized above.

All BCS branch staff and management have received training on the City's Responsible Computing Policy. In addition, a memo regarding appropriate use of email and Internet use, which included a reminder of the Code of Conduct, was sent to all staff from the Director and Chief Building Official.

As per the management response, no further action is required in the implementation of this recommendation.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 22

Management provided a copy of the email to staff regarding the City's Responsible Computing Policy, and the briefing provide to staff in Q4 2009.

OAG: % complete **100%**

4 SUMMARY OF THE LEVEL OF COMPLETION

The table below outlines our assessment of the level of completion of each recommendation as of January 31, 2011. Management's response was in agreement with that assessment.

CATEGORY	% COMPLETE	RECOMMENDATIONS	NUMBER OF RECOMMENDATIONS	PERCENTAGE OF TOTAL RECOMMENDATIONS
LITTLE OR NO ACTION	0 – 24	-	-	-
ACTION INITIATED	25 – 49	1	1	5%
PARTIALLY COMPLETE	50 – 74	-	-	-
SUBSTANTIALLY COMPLETE	75 – 99	-	-	-
COMPLETE	100	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22	21	95%
TOTAL			22	100%

5 CONCLUSION

Building Code Services has made a very serious effort to address the recommendations of the audit. We also found that in many cases where management originally disagreed with the original audit recommendations, they had taken some action to address the general intention of the recommendations.

6 ACKNOWLEDGEMENT

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.