



Office of the Auditor General / Bureau du vérificateur général

FOLLOW-UP TO THE 2008 AUDIT OF THE

TRAFFIC OPERATIONS DIVISION

2010

SUIVI DE LA VÉRIFICATION DE LA DIVISION DE LA

CIRCULATION ROUTIÈRE DE 2008

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EXECUTIVE SUMMARY

Introduction

The Follow-up to the 2008 Audit of the Traffic Operations Division was included in the Auditor General's Audit Plan.

The key findings of the original 2008 audit included:

- Traffic management at the City is not guided by a strategy, goals or priorities, making it difficult to ensure achievement of Council approved policies identified in the Official Plan and Transportation Master Plan;
- The Traffic Operations Division did not use any performance measurement systems to measure work conducted nor publish statistics on its performance to Council, although there was a corporate initiative underway to characterize performance measurements;
- Year-to-year planning is conducted in association with the corporate budget process, but a strategic plan for the Division does not currently exist;
- The City relies completely on a single contractor for all traffic controllers used. This leaves the City with no recourse should this contractor be unable to meet its obligations;
- Several City employees were also employed by a private engineering firm which conducts similar work for neighbouring municipalities; and,
- No action was taken by senior branch or departmental management to monitor or assess the conflict of interest by these employees. This issue is the subject of a separate audit report.

Summary of the Level of Completion

The table below outlines our assessment of the level of completion of each recommendation conducted in January 2011. Subsequently, management's response in the Spring of 2011 was in agreement with that assessment.

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

Conclusion

This follow-up audit recognizes that Traffic Operations Division (now Roads, Traffic Operations and Maintenance Branch) has undergone substantial change in management structure since 2008 including a comprehensive change in persons occupying the three tiers of management responsibility over the Branch. Overall, the Traffic Operations Branch has partially to fully implemented 95% of the 2008 audit recommendations.

Substantial achievement was in evidence, as follows:

- Action has been initiated to alleviate over-crowding of staff and material handling activities at the 175 Loretta Avenue facility. The amalgamation of Traffic Operations with Roads and Maintenance has facilitated the sharing of various City of Ottawa yards and buildings.
- Staff reported positive change in the handling of Streetlight contracts. Staff resources have been rationalized and the Street Lighting work unit now reports to the Manager of Roads, Traffic Operations and Maintenance Branch.
- Field testing of regulatory signs minimum retro-reflectivity has been reinstated by Traffic Operations.
- Progress has started in the development of a Performance Measures (PM) system within Traffic Operations. A framework approach for reporting on unit performance has been developed and presentation of a complete PM system is expected in 2012.
- The Strategic Plan for the Unit is currently under development based on a Terms of Reference presented to Council in 2009.
- Management has started seeking alternative private sector involvement in personnel and material resourcing. Staff reported an initial effort at private sector competition in material supply that resulted in an approximately 18% reduction in unit costs on some traffic controller equipment, representing an annual savings of approximately \$49,000 over previous sole-sourced contracts. Management should continue to look for opportunities for cost-effective alternate procurements in other areas.
- Efforts have been taken by Traffic Operations staff to document technical manufacturing standards for some traffic controller equipment. This development of written technical standards is required when considering private sector competitive bids for supply, and also represents a transfer back to the City of technology developed through its traffic controller research and development program.

- Management made efforts to reduce overtime, but overtime costs remain generally high and many of the individual staff members identified as very high overtime earners in the 2008 audit continue to earn significant overtime-related compensation in 2010. For both 2009 and 2010, total actual overtime was over budget in the Division. Management indicates that the variance in 2010 was primarily attributable to the additional work created by the economic stimulus funding the City received which the Traffic Operations Division had to support and respond to.

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 la Division de la circulation routière de 2008 était prévu dans le Plan de vérification du vérificateur général.

Les principales constatations de la vérification de 2008 sont les suivantes :

- la gestion de la circulation routière de la Ville ne repose pas sur une stratégie, des objectifs ou des priorités, ce qui rend difficile d'assurer la réalisation des politiques approuvées par le Conseil et énumérées dans le Plan officiel et le Plan directeur des transports.
- La Division de la circulation routière n'a eu recours à aucun système de mesure du rendement pour évaluer le travail accompli ou publier des statistiques sur son rendement à l'intention du Conseil, bien qu'une initiative municipale ait été en cours pour caractériser les mesures du rendement.
- La planification annuelle se fait de concert avec le processus budgétaire municipal, mais à l'heure actuelle, il n'existe pas de plan stratégique pour la Division.
- La Ville s'en remet complètement à un seul entrepreneur pour tous les dispositifs de contrôle de la circulation qu'elle utilise, ce qui laisse la Ville sans recours si cet entrepreneur ne pouvait faire face à ses obligations.
- Plusieurs employés de la Ville occupant un deuxième emploi dans une firme d'ingénierie privée qui accomplit un travail similaire pour les municipalités voisines.
- Aucune mesure n'a été prise par la haute direction ou la direction du service pour surveiller ou évaluer les conflits d'intérêts auxquels pourraient être exposés ces employés. Cette question fait l'objet d'un rapport de vérification distinct.

Sommaire du degré d'achèvement

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

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

Conclusion

Cette vérification de suivi atteste que la Division de la circulation routière (maintenant appelée Direction de l'entretien des routes et de la circulation routière) a subi des modifications importantes dans sa structure de gestion depuis 2008, y compris un changement général du personnel occupant les trois niveaux de responsabilité de gestion à cette Direction. Dans l'ensemble, la Direction de la circulation routière a mis en œuvre, de façon partielle ou complète, 95 % des recommandations formulées dans la vérification de 2008.

Des réalisations notables sont évidentes, comme suit :

- Des mesures ont été prises pour réduire le surpeuplement en ce qui a trait au personnel et les activités de manipulation des matériaux à l'installation du 175, avenue Loretta. La fusion de Circulation routière avec Routes et Entretien a facilité le partage de divers dépôts et bâtiments de la Ville d'Ottawa.
- Le personnel a fait part de changements positifs dans la gestion des contrats relatifs à l'éclairage de rue. Les ressources en personnel ont été rationalisées et l'unité de travail de l'éclairage des rues relève maintenant du gestionnaire de la Direction de la circulation routière et de l'entretien des routes.
- L'essai sur le terrain de la rétroreflectivité minimale des panneaux de signalisation a été réinstauré par Circulation routière.
- On commence à enregistrer des progrès dans l'élaboration d'un système de mesures du rendement à Circulation routière. Une démarche cadre pour faire rapport sur le rendement de l'unité a été établie et la présentation d'un système complet de mesures du rendement est prévu pour 2012.
- Le plan stratégique de l'unité est en cours d'élaboration en fonction du mandat présenté au Conseil en 2009.
- La direction a commencé à chercher d'autres solutions visant à encourager la participation du secteur privé en matière de ressources humaines et matérielles. Le personnel a fait part d'un premier appel d'offres compétitif

visant le secteur privé pour la fourniture de matériel qui a entraîné une réduction d'environ 18 % des coûts par unité pour certains équipements de contrôle de la circulation, soit des économies annuelles d'environ 49 000 \$ par rapport aux précédents contrats à fournisseur unique. La direction devrait continuer à chercher d'autres occasions d'acquisitions rentables dans d'autres domaines.

- Le personnel de Circulation routière fait des efforts afin de documenter les normes de fabrication technique pour certains des équipements de contrôle de la circulation. L'élaboration de ces normes techniques écrites est nécessaire si l'on envisage d'obtenir des soumissions concurrentielles du secteur privé en vue de l'approvisionnement, et permet en retour l'utilisation par la Ville de technologies élaborées grâce à sa recherche en matière de contrôle de la circulation et à l'élaboration de programme.
- La direction a également fait des efforts pour réduire les heures supplémentaires, mais ces dernières restent de manière générale élevées, et les employés ayant été identifiés comment réalisant énormément d'heures supplémentaires dans la vérification de 2008 continuent de bénéficier d'une rémunération importante liée aux heures supplémentaires en 2010. En 2009 et 2010, le nombre total réel d'heures supplémentaires dépassait le budget de la Division. La direction a indiqué que l'écart budgétaire en 2010 était avant tout dû au travail supplémentaire découlant des fonds de stimulation économique que la Ville a reçus et auxquels Circulation routière devait satisfaire et faire face.

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 2008 Audit of the Traffic Operations Division was included in the Auditor General's Audit Plan.

The key findings of the original 2008 audit included:

- Traffic management at the City is not guided by a strategy, goals or priorities, making it difficult to ensure achievement of Council approved policies identified in the Official Plan and Transportation Master Plan;
- The Traffic Operations Division did not use any performance measurement systems to measure work conducted nor publish statistics on its performance to Council, although there was a corporate initiative underway to characterize performance measurements;
- Year-to-year planning is conducted in association with the corporate budget process, but a strategic plan for the Division does not currently exist;
- The City relies completely on a single contractor for all traffic controllers used. This leaves the City with no recourse should this contractor be unable to meet its obligations;
- Several City employees were also employed by a private engineering firm which conducts similar work for neighbouring municipalities; and,
- No action was taken by senior branch or departmental management to monitor or assess the conflict of interest by these employees. This issue is the subject of a separate audit report.

2 KEY FINDINGS OF THE ORIGINAL 2008 AUDIT

1. Traffic Operations Division derives its general mandate and direction from Council approved broad policies (i.e., Official Plan (OP) and Transportation Master Plan (TMP)) that offer significant latitude for interpretation and application.
2. The Traffic Operations Division has not established strategic objectives, goals and priorities for traffic management to ensure achievement of Council approved high level policies identified in the OP and TMP.
3. The type of work conducted by Traffic Operations Division lends itself to being quantified in terms of outcomes and performance measures, as the detailed engineering involved in ongoing monitoring and operations is designed to meet more general user outcomes (related to speed of travel, reductions in congestion and delay, longevity and effectiveness of signage and line painting performance and other operating priorities by travel mode). At the time we conducted the audit, the Traffic Operations Division did not use any performance measurement systems to measure work conducted and publish statistics on its

performance to Council, although there was a corporate initiative underway to characterize performance measurements.

4. Division officials confirm that year-to-year planning is conducted in association with the corporate budget process, but that a strategic plan for the Division does not currently exist.
5. The audit of individual work units within the Division provided evidence of organizational systems and prioritization of weekly, seasonal and day-to-day priority setting.
6. This high degree of organizational interdependence within the Division, combined with limited space, forces a large majority of work by the Division to be conducted in a 'just-in-time' manner; requiring substantial organizational effort to be allocated to weekly, monthly and seasonal priority setting and coordination.
7. Day-to-day workload planning appears to be organized within all work units providing detailed explanations of priority setting systems, supervision and management direction.
8. Traffic Operations Division represents a relatively constant operational requirement to City budget, with annual operating budgets ranging from \$33.5 million to \$35.9 million over the period 2006 to 2007. Expenditures are controlled by the Division, with few divisional activities being unusually impacted by external factors.
9. Operating and capital budgets preparation is based on percentage increases over previous years only and is not based on technical assessment of need (e.g., zero-based budgeting) nor are they reflective of financial requirements needed to implement Council approved programs or directives. By all accounts, this approach appears to address departmental and/or corporate directives beyond the control of the Traffic Operations Division.
10. Division financial tracking and control (by projects and individual budget elements) is supported by the Division's administration with managers at all levels provided with monthly tracking and control documents to adjust programs to remain within budget.
11. The Division is responsible for cost recovery and claims, which is well coordinated with the City's Legal Services Branch.
12. The Division maintains a financial system to control and track 'Outside Sales' (sales to private organizations, developers, external municipalities and others including traffic control system and signals equipment, signage (stock and specialized); signage hardware and steel; and, service charge-backs for in-field work required to facilitate the moving of houses (modifying signals for clearance, wires, etc.)). While this service is an extension of a longstanding inter-

municipal cooperation program, the risks and costs of the Outside Sales program, given the limited space available at 175 Loretta Avenue yards for materials handling, the cost of the program, risk of program abuse and the ready availability of similar product through numerous private sector suppliers and contractors supports the notion that this program is no longer required (with the exception of house move escorts).

13. Overtime costs within the Division included over 45 employees earning an average of \$10,270 in overtime wages in 2007; with the top 10 overtime earners receiving more than \$17,000 in overtime and the highest earner taking home \$21,710 (35% additional to base salary).
14. While the Division necessarily undertakes a significant amount of work on a 24-hour basis, opportunities may exist for the reduction of overtime through the establishment of a regular evening/night shift.
15. While the Division provided evidence of a structured approach to the assignment of on-call and after-hours services; rotation of some on-call and after-hours duties were being made to employees that do not currently hold the requisite position within the organization, and as such the conduct of their duties and overtime claims goes unsupervised (these two individuals earned an average of \$17,160 of overtime in 2007).
16. The inherent and implicit internal controls to manage moonlighting which exist in the organizational structure of a normal business environment are compromised and ineffective within the Traffic Operations Division due to the presence of Partham employees and the owner at many levels within the City's reporting structures.
17. City employees who moonlight for Partham Engineering Ltd. are not adequately supervised by their City supervisors, both immediate supervisors and management, to ensure that the moonlighting activities do not interfere with City responsibilities.
18. The current Employee Code of Conduct does not adequately provide direction on moonlighting as it relates to limiting unacceptable situations where City supervisors and subordinates are jointly involved in related profit-motive ventures.
19. The City should have recognized the inappropriateness of the reporting relationships of Partham/City staff as they developed over time and highlighted them when documenting the staff working for Partham, as well as highlighting them when staff were promoted within the Division.
20. In order to ensure City management was fully informed prior to bringing the organizational restructuring before Council on March 25, 2009, we raised the issues relating to Partham Engineering conflicts to the General Manager, Public

Works on January 23rd. We also subsequently issued on February 2nd, earlier than had been scheduled, the draft report to the City Manager.

21. We found no action by senior branch or departmental management aimed at monitoring or assessing conflict of interest by Partham employees. That is, there are no systems, procedures or controls in place to prevent or detect excessive and/or inappropriate moonlighting. There was no evidence of seeking advice from the City Solicitor or City Treasurer (regarding internal controls). It was evident however that senior management had been involved in investigating and responding to complaints received.
22. Parking functions are not related to other activities of the Traffic Operations Division and should, more appropriately, directly report to the Director of Traffic and Parking Operations.
23. While the audit identified no significant deficiencies in the conduct of street lighting through the private sector contract (now in place with Black and McDonald) the City should renegotiate the current contract to address minor deficiencies at normal renewal milestones and should retain well-qualified staff to prepare for such negotiations.
24. The Traffic Operations Division has, over time, developed a widespread 'do it ourselves' approach to materials procurement, engineering analysis and traffic controller planning, design and construction. The result is additional costs to the City in the areas of research, development and training; or for equipment, the costs of equipment storage, handling, breakage and loss. This could also put the City at risk if the internal resources are no longer available.
25. Division staff were well informed about legislation, regulations and other compliance issues they should address in their work, however, it was apparent that limited technical interaction occurs between Division staff and staff of other government jurisdictions, technical associations, etc.
26. At present, the Division does not maintain a database on non-regulatory roadway signage. Current systems are inadequate and a comprehensive signs inventory system should be created to track both regulatory and required non-regulatory signage as well as special signage (warning signs, hazard markers, etc.) for which the Division is responsible.
27. In-field quality testing of regulatory and non-regulatory roadway signage is no longer conducted by divisional staff and should be reintroduced to meet regulatory obligations set out by the Ministry of Transportation of Ontario for signs condition upkeep reflectivity / luminosity. Court records confirm that the municipality is exposed to significant liability when it does not meet minimum care standards set out in legislation and published best practices.
28. The senior staff decision over the past decade to develop a relationship with a sole-employee business, Thompson Technologies, for the planning and design of

traffic controller technology used in the City, leaves the City without an effective alternative should Thompson Technologies, for any reason, be unable to meet its obligations or escalate prices beyond fair market prices. The City is exposed to substantial risk of service loss, and/or added service costs.

29. The City is not protected to ensure that any revenue generated by contracted companies using both funds and research derived from the City contracts, accrues to the City, in particular the technology developed by Thompson Technologies, Luxcom, Multilek and/or Rogers Digital Communications while under contract to the City of Ottawa.

30. Key dates relating to Partham Engineering and Jim Bell:

Date	Event
xxxx	New Hire - Jim Bell, Manager of Signal and Communication, RMOC
1985 to 1990	RMOC offers inter-municipal support to nearby municipalities and townships to assist with their limited traffic signal needs
1990	Committees directed that the inter-municipal support program cease
1990	Partham was formed. Owned and operated by Jim Bell and Andy Thompson
1996	Jim Bell declares moonlighting conflict of interest
1997	Jim Bell and his wife, Sue McInnis (Office Manager) take over Partham as sole shareholders
1997	Four Traffic Operations employee declare moonlighting conflict of interest
1999	Data Change from Manager of Signal and Communication to Manager Traffic Operations, RMOC
1999 to present	Multilek starts supplying the City of Ottawa the Multilek Traffic Controller
1999 to present	Thompson Technologies (Andy Thompson) first under contract for a number of research and development initiatives and projects related to traffic signal technology advances
2001	Promotion: Jim Bell Manager, Traffic Operations Division, New City of Ottawa
2008	City Auditor General undertakes an audit of Traffic Operations Division
Spring 2008	Three additional Traffic Operations employee declare moonlighting conflict of interest
January 2009	City Auditor General raises audit findings pertaining to Partham Engineering conflict of interest to General Manager, Public Works
February 2009	City Auditor General issued, earlier than scheduled, the draft audit report to the City Manager (prior to his bringing the re-organizational restructuring before the March 25, Council)

Date	Event
March 2009	Jim Bell [redacted] as part of the City administrative reorganization ([redacted])
April 2009	Competition for Manager, Traffic Operations posted
April 27, 2009	Competition for Manager, Traffic Operations closes

3 STATUS OF IMPLEMENTATION OF 2008 AUDIT RECOMMENDATIONS

2008 Recommendation 1

That the City develop, for Council approval, standards and a related detailed performance measurement program by which their activities can be monitored and reported for Council and public review; and, recommend to Council clarifying policies to further direct the Division on traffic management priorities.

2008 Management Response

Management agrees with this recommendation.

The Roads and Traffic Operations and Maintenance branch, in conjunction with the Operations, Engineering and Technical Support branch, is currently developing a performance measurement program for Traffic Operations, which will include a balanced scorecard. The reporting of performance measures through this program will begin by Q2 2010.

Currently, Council is provided with reports specific to service standards, which detail response times to traffic signal and signage inquiries received through 3-1-1.

Traffic Management priorities will be clarified through the current principles of the Transportation Master Plan and the Transportation System Management (TSM) module, both of which will be completed by Q4 2009.

Management Representation of the Status of Implementation of Recommendation 1 as of September 30, 2010

The Roads and Traffic Operations and Maintenance branch, in conjunction with the Operations, Engineering and Technical Support branch, developed a Balanced Scorecard which is released internally on a monthly basis. There are transportation performance objectives and indicators in the Transportation Master Plan, and additional information will be included as part of the report for the five-year strategic plan.

The five-year strategic plan, scheduled to be tabled at Committee and Council by the end of Q2 2011, will also clarify policies to further direct the Division on traffic management priorities.

Management: % complete

60%

OAG's Follow-up Audit Findings regarding Recommendation 1

Based on a review of Performance Measurement (PM) and Benchmarking data published by the Branch to Council to date, it is evident that the Branch has completed substantive work toward the development of a PM Framework but that no actual report on Performance Measurement analytical information has been prepared or published. The OAG will consider reviewing progress on this issue during our planned 2011 Audit of Performance Measurement.

OAG: % complete

60%

Management Representation of Status of Implementation of Recommendation 1 as of Spring 2011

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

The Roads and Traffic Operations and Maintenance branch is developing the Transportation System Management Five-Year Strategic Plan, which will be presented to Council in Q3 2011. This plan will clarify policies and identify traffic management priorities and appropriate performance objectives, which will complete the last component of the OAG's original recommendation.

Management: % complete

60%

2008 Recommendation 2

That the City prepare a five-year strategic plan with detailed direction for change and growth within each of the services areas they perform with the intent of rationalizing, optimizing or expanding their works in line with Council's directives or to reduce expenditures.

2008 Management Response

Management agrees with this recommendation. The Roads and Traffic Management branch, in conjunction with the Traffic, Engineering and Technical Services Unit, is preparing a five-year plan that aligns with Council's strategic directions. The five-year plan will be guided by the current principles of the Transportation Master Plan and the Transportation System Management (TSM) module.

Council will be presented with the terms of reference, currently being developed, in Q4 2009.

Management Representation of the Status of Implementation of Recommendation 2 as of September 30, 2010

The Roads and Traffic Management branch, in conjunction with the Traffic, Engineering and Technical Services unit, is currently preparing a five-year strategic

plan. Stakeholder/focus group sessions were completed in Phase I of the process. The five-year strategic plan is scheduled to be tabled at Committee and Council by the end of Q2 2011.

Management: % complete **60%**

OAG's Follow-up Audit Findings regarding Recommendation 2

Through the course of the follow-up audit, management provided evidence that development of an overall Department Strategic Plan was underway. The Terms of Reference for the development of a Strategic Plan, provided to Council in 2009, suggests that this plan will be compliant to Council's views and directives.

In keeping with the recommendations, findings and broader considerations of the 2008 Audit of Traffic Operations, the Department is encouraged to prepare the Branch Strategic Plan with a view to "rationalizing, optimizing or expanding their works". Government activity in such area as traffic control systems and signage operations, should be carefully rationalized in order to ensure that public safety, legislative compliance and cost-competitiveness is maintained.

OAG: % complete **60%**

Management Representation of Status of Implementation of Recommendation 2 as of Spring 2011

Management agrees with the OAG's follow-up audit finding. The Roads and Traffic Operations and Maintenance branch is developing the Transportation System Management Five-Year Strategic Plan, which will be presented to Council in Q3 2011. This plan will align with Council's strategic directions. The five-year plan will be guided by the current principles of the Transportation Master Plan and the Transportation System Management module.

Management: % complete **60%**

2008 Recommendation 3

That the City review policies related to Outside Sales, immediately removing the City of Ottawa from competition with the private sector for the sale of goods and services that can be provided by others.

2008 Management Response

Management agrees with this recommendation. All outside sales, with the exception of house movers, have been suspended; however, requests from charitable organizations or not-for-profit agencies will continue to be considered on a case-by-case basis using appropriate documentation and procedures until such time as they too can be phased out.

Management Representation of the Status of Implementation of Recommendation 3 as of September 30, 2010

Effective June 2009, all outside sales have been terminated.

Management: % complete

100%

OAG's Follow-up Audit Findings regarding Recommendation 3

The follow-up audit review of Recommendation 3 confirmed that the sale of City purchased material to third parties (public and private) has ceased at the direction of the Department head. In interviews, staff confirmed that this change to long-standing practices was implemented without difficulty and that the only Branch service currently recouped relates to traffic signals adjustment needed to facilitate the transport of oversized items (e.g., house movers, etc.) along public roadways. We did find one exception, a smaller outside street lighting sale in November 2010 to a developer. The developer was subsequently invoiced for approximately \$1,600 for the service in April 2011.

OAG: % complete

100%

2008 Recommendation 4

That the City review traffic engineering practices within the Division and the need for upward of 6 to 12 months of internal training before new hires are able to contribute to Division traffic engineering and consider either:

- a) **Modifying divisional structures to permit the employment of additional lower qualified engineers who would be retained/advanced over time;**
- b) **Identifying opportunities for external engineering resources to assist the unit in the traffic engineering analysis during seasons of peak demand/reduced staff; or,**
- c) **Maintaining published standards for traffic engineering which place added responsibilities for advanced traffic engineering unto proponents of projects that impact traffic flows (e.g., developers, other government agencies, etc.).**

2008 Management Response

Management agrees with the intent of this recommendation.

The City believes it has been successful over the past 30 years in recruiting and retaining qualified engineers, technologists, and technicians in the field of traffic engineering. Moreover, many of the City's current professionals were hired for full-time positions after having completed successful co-op terms in the Traffic Engineering unit.

Through a cross-training program, engineers are also routinely rotated between the Traffic Engineering, Design Review and Traffic Engineering Technical Support units.

The Roads and Traffic Operations and Maintenance branch will review opportunities to engage external engineering services as required through the Professional Engineering Services Standing Offer. However, a considerable portion of the traffic engineering analysis undertaken by staff involves the review of Traffic Impact Reports submitted by consultants to the City. In these instances, the effect of this recommendation would be a situation in which external consultants were reviewing other external consultants' traffic engineering submissions.

The City currently follows requirements contained in the Transportation Impact Assessment Guidelines.

Management Representation of the Status of Implementation of Recommendation 4 as of September 30, 2010

As per the management response, this is an ongoing process. The Roads and Traffic Operations and Maintenance branch continues to provide training opportunities to Traffic Operations staff.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 4

The original 2008 audit findings reported Branch problems in maintaining an adequate sized traffic engineering workforce to properly address ongoing analytical demands. In response, the audit suggested (1) a review of current recruitment and training practices to augment the availability of qualified staff and/or, (2) that consideration be given to using private sector forces to augment the core municipal workforce and/or (3) that detailed Branch technical standards be published and that the onus of advanced traffic control analysis work be passed to developers whose consultants would be obliged to offer acceptable real-world solutions for Branch implementation. Work has been done in these areas.

Management has indicated that as outlined in the original Management Response and the Management Representation of Status of Implementation as of September 30, 2010, this is an ongoing process. There is a proven system in place that promotes junior engineers and technologists through the organization. There have historically been a number of junior/entry level/co-op positions in the Traffic Engineering and the Systems and Communications units. Many of the more senior positions within the division are now occupied by staff that started in these junior positions, such as the Program Manager - Systems, Video and Communications; Program Manager - Traffic Operations; and the Traffic Control Engineer.

External engineering resources will be retained as workload requires however, as noted in the original Management Response, a considerable portion of the traffic engineering analysis undertaken by staff involves the review of Traffic Impact Reports submitted by consultants to the City. In these instances, the effect of this

recommendation would be a situation in which external consultants were reviewing other external consultants' traffic engineering submissions.

OAG: % complete

100%

2008 Recommendation 5

That the City review causal factors influencing the large number of individuals with high overtime costs, and investigate the best means of reducing overtime costs; and that such a review include the assessment of the creation of an after-hours crew (e.g., to cover the afternoon peak traffic period, etc.) to reduce overall overtime and call-out costs.

2008 Management Response

Management agrees with this recommendation. The Roads and Traffic Operations and Maintenance branch, in conjunction with Legal Services, Finance and Employee Services, is currently conducting a review of employee overtime and is taking steps to reduce overtime costs where possible. This review will be completed by Q3 2009.

The new management team has implemented a monthly financial report for all functional areas in the new Public Works department, which monitors all program areas and tracks key expenditures, including overtime. The departmental senior management team reviews this report on a monthly basis.

Management Representation of the Status of Implementation of Recommendation 5 as of September 30, 2010

The Roads and Traffic Operations and Maintenance branch, in conjunction with Legal Services, Finance and Employee Services compiled overtime data from 2009 and are reviewing possibilities for after hours scheduling. This review is expected to be complete by the end of Q2 2010.

Management: % complete

50%

OAG's Follow-up Audit Findings regarding Recommendation 5

We found that a serious effort has been made to consider options to reduce Branch overtime costs (e.g., alternative shift starts, dual-shifts, etc.) within the bounds of the current collective agreements.

It is recognized that management is currently limited as to their ability to reduce the cost of after-hour service and that high overtime costs will likely continue until it becomes more efficient to carry the costs of an after-hours shift, or until substantial changes are made to the current work practice (redefinition of the normal work day under collective agreements, retention of private sector services to address after-hours works, etc.).

Below are the overtime costs for the Traffic Unit.

Year	Plan	Actual	Variance (\$ Value)	Variance (%)
2009	\$710,626	\$836,697	\$126,071	18%
2010	\$776,841	\$1,164,057	\$387,216	50%

Management has indicated that with regard to the variance between plan versus actual for 2010 overtime, it should be noted that the difference is attributed to the additional work created by the Economic Stimulus Funding the City received which the Traffic Unit had to support and respond to.

Management has provided a sample comparison of work undertaken in 2009 versus 2010, as summarized in the table below, demonstrating the increase in work as a result of stimulus funding which contributed to the increase in overtime:

	2009	2010	% Increase
New signal installations	10	33	230
Signal Projects (rebuilt)	224	285	27
Underground signal locates	1,700	2,500	47
Traffic sensors/detectors	376	633	68
Traffic cameras	24	27	13
Communication cable	22,000 m	42,000 m	90

OAG: % complete **50%**

Management Representation of Status of Implementation of Recommendation 5 as of Spring 2011

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

The Roads and Traffic Operations and Maintenance branch will continue to explore the possibilities of after-hours scheduling within the parameters of the Collective Agreement. This review will be completed by Q2 2012.

Management: % complete **50%**

2008 Recommendation 6

That the City plan and implement a program of staff involvement in existing traffic operations organizations (International Municipal Signal Association, Institute of Transportation Engineers; Transportation Association of Canada, etc.) with a view to enhancing technology and knowledge transfer and bridging the growing uniqueness of Ottawa's Traffic Operations standards and procedures (i.e., signals, communications, signs and painting) and ensure a higher degree of industry conformity.

2008 Management Response

Management agrees with the intent of this recommendation. Staff from the Roads and Traffic Operations and Maintenance branch are actively involved with, and participate in the identified organizations, as the City's traffic operations system is considered best practice in the industry. For example, an employee from Traffic Engineering represents the City on the Canadian Association of Transportation Engineers (CATE).

Traffic engineering staff regularly sit on project steering committees for the Traffic Operations Management Steering Committee of the Transportation Association of Canada. Traffic Operations employees, representing the City, have also assisted with the development and updating of Ontario Traffic Manuals, including Book 12 – Traffic Signals.

In addition, Traffic Signals, Signs and Pavement Marking employees have received training at varying levels from the International Municipal Signal Association (IMSA), commensurate with their positions. In fact, in recent years the organization has conducted training in Ottawa, as opposed to Mississauga, where it did so previously, because of the high number of City staff enrolled in the IMSA training program. As a result, the City was able to avoid considerable travel expenses it would have otherwise incurred.

The Roads and Traffic Operations and Maintenance branch will continue to encourage branch staff to participate in these organizations, as well as any others that may enhance the City's traffic operations systems.

Management Representation of the Status of Implementation of Recommendation 6 as of September 30, 2010

As per the management response, this is an ongoing process. The Roads and Traffic Operations and Maintenance branch continues to promote staff involvement with external organizations for the purpose of enhancing operations.

Management: % complete

100%

OAG's Follow-up Audit Findings regarding Recommendation 6

It is recognized that the Branch has one regular member of the Canadian Institute of Transportation Engineers (CITE National Capital Section) and that other staff are offered the opportunity to attend this and other professional development organizations (Transportation Association of Canada, etc.). Regular and ongoing staff training and professional liaison opportunities are critical to support the growth and governance of technical services organizations such as the Roads, Traffic Operations and Maintenance Branch. Given the large population of technical and professional staff working within the Branch, continued encouragement of staff participation in professional development and liaison activities is warranted.

*OAG: % complete**100%*

2008 Recommendation 7

That the City ensure that on-call traffic signal staff hold all necessary certification, and ensure that adequate management oversight is in place to ensure that no individual be responsible for excessive amount of shift work.

2008 Management Response

Management agrees with this recommendation. A training matrix has been developed that tracks and flags training requirements for individual employees commensurate with their position. The Roads and Traffic Operations and Maintenance branch are reviewing the current certifications held by Traffic Signal staff, identifying any gaps, and will implement appropriate training by Q1 2010 in order to ensure that shift work requirements are balanced throughout the work unit.

Management Representation of the Status of Implementation of Recommendation 7 as of September 30, 2010

The Roads and Traffic Operations and Maintenance branch reviewed certifications/training held by Traffic Signal staff and ensured appropriate certification/training was completed. This occurred prior to the end of Q1 2010.

*Management: % complete**100%*

OAG's Follow-up Audit Findings regarding Recommendation 7

The follow-up audit confirmed that the Branch has corrected staffing methods to ensure that field staff is properly certified for signal repairs and maintenance.

*OAG: % complete**100%*

2008 Recommendation 8

That the City immediately clarify the Employee Code of Conduct to provide that employees involved in moonlighting be prohibited from working as supervisor-subordinates (direct or indirect subordination) within a single department work unit at the City.

2008 Management Response

Management agrees with this recommendation. The Legal Services branch will be undertaking a significant review of the *Employee Code of Conduct* in order to clarify and consolidate various sections that have been noted in audit reports over the course of the past few months, including the "Outside Business Activity (Moonlighting)" provisions. The Legal Services branch will complete this review by the end of Q3 2009.

Management Representation of the Status of Implementation of Recommendation 8 as of September 30, 2010

On April 6, 2010, staff presented the revised Employee Code of Conduct to the Corporate Services and Economic Development Committee.

Distribution of the Code to managers and employees, as well as posting on the City's internal and external websites, was completed in the first week of October.

Detailed Q's and A's to assist managers in the interpretation and application of the Code were also posted concurrently.

Regular communications to employees and managers, through the City Briefs and Management Bulletins are intended to provide an ongoing focus on the Code and to address questions that may arise.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 8

Revision of the Code of Conduct has been completed by Legal Services. In conjunction with the new Code of Conduct, background question and answer documents were provided to employees, supervisors and managers. These questions and answer documents help to clarify the requirements of the Code.

OAG: % complete **100%**

2008 Recommendation 9

That the City clarify the Employee Code of Conduct - Moonlighting through supporting procedures, systems, documents and forms to provide guidance to managers and supervisors in assessing whether moonlighting is appropriate.

2008 Management Response

Management agrees with this recommendation. Within the context of the aforementioned review, the Legal Services branch proposes to include a "Supplementary Questions and Answers" section to the "Outside Business Activity (Moonlighting)" section of the Employee Code of Conduct by the end of Q3 2009. (Similar guidance is already provided with respect to the Gifts, Entertainment and Hospitality Corporate policy, and is intended to provide managers and supervisors with practical examples to assist in outlining the City's ethical requirements.) Legal Services will also reinforce the fact that any questions regarding the interruption or application of the Code, or other related advice or guidance, may be sought from the City Clerk and Solicitor.

Management Representation of the Status of Implementation of Recommendation 9 as of September 30, 2010

On April 6, 2010, staff presented the revised Employee Code of Conduct to the Corporate Services and Economic Development Committee.

Distribution of the Code to managers and employees, as well as posting on the City's internal and external websites, was completed in the first week of October.

Detailed Q's and A's to assist managers in the interpretation and application of the Code were also posted on concurrently.

Regular communications to employees and managers, through the City Briefs and Management Bulletins are intended to provide an ongoing focus on the Code and to address questions that may arise.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 9

Revision of the Code of Conduct has been completed by Legal Services. In conjunction with the new Code of Conduct, background question and answer documents were provided to employees, supervisors and managers. These questions and answer documents help to clarify the requirements of the Code.

OAG: % complete **100%**

2008 Recommendation 10

That the City take immediate action to put in place necessary interim management oversight and controls over the activities of Partham Engineering and their employees consistent with the provisions of the current Employee Code of Conduct.

2008 Management Response

Management agrees with this recommendation. The Public Works department is working in collaboration with Legal Services, Human Resources and Labour Relations to identify, implement and monitor measures and controls to ensure there are no conflicts or violations of the *Employee Code of Conduct* by the end of Q2 2009.

Management Representation of the Status of Implementation of Recommendation 10 as of September 30, 2010

Significant changes were made to the former policies, procedures, procurement practices, and reporting relationships in the Traffic Operations unit. In September 2009, management met individually with City staff who are also employed by Partham Engineering to remind them of their obligation to disclose all outside business activity situations and to ensure compliance with the Code of Conduct and its related policies. Staff were advised to discuss any previous arrangements and/or agreements they may have had regarding Partham Engineering and were reminded of their responsibility to avoid any actual or perceived conflicts of interest.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 10

The Code of Conduct has been revised and is being used by management as the method for oversight and control.

We found that the employee, who had not previously filed conflict of interest declarations, has now done so.

The revised Code does not require annual declarations of potential conflicts of interest. Management indicated that the City has, in the new Employee Code of Conduct, reaffirmed the importance of timely disclosure of personal interests that may affect an employee's responsibilities. In this regard, the City no longer requires annual declarations, but rather the new Code of Conduct provides for a continuous obligation to disclose conflicts between an employee's personal interests and those of the City. This is identified in several provisions of the Code, though most notably in the section on "Transparency" noted below:

Transparency

What we do...

Where there might be a conflict between our personal interests and those of the City, we disclose that fact immediately and seek guidance from our managers.

...

We understand that, over time, circumstances can change and we may need to disclose again: the obligation to disclose is a continuing one.

The disclosure requirement is restated frequently throughout the Code, including those sections dealing with "*Impartiality - Avoiding conflicts of interest*" and "*Impartiality - Employment matters*". While the requirement to disclose conflicting interests is an immediate and ongoing one, the Code also contemplates that a review of the ethical principles contained therein, along with any specific situations that arise in respect of an employee, forms part of the annual performance planning cycle for employees. This is noted in the "*Accountability*" section of the Code.

OAG: % complete

100%

2008 Recommendation 11

That the City take immediate action to cease the moonlighting activities of all City employees, including Mr. Jim Bell, with Partham Engineering.

OAG COMMENT: In order to ensure City management was fully informed prior to bringing the organizational restructuring before Council on March 25, 2009, we raised the issues relating to Partham Engineering conflicts to the General Manager, Public Works on January 23rd. We also subsequently issued on February 2nd, earlier than had been scheduled, the draft report to the City Manager.

2008 Management Response

Management agrees with this recommendation. The Legal Services branch will work closely with senior management in the Public Works department to address any real or perceived conflicts of interest or violations of the Employee Code of Conduct within the context of the revised organizational structure and in compliance with the requirements of any contract of employment or collective agreement, by the end of Q3 2009.

OAG COMMENT: The OAG considers that this recommendation should be forwarded to the Audit, Budget and Finance Committee for discussion.

Management Representation of the Status of Implementation of Recommendation 11 as of September 30, 2010

This recommendation requires resolution.

As a result of a new management structure, any real or perceived conflicts of interest have been addressed. Staff have been reminded of their obligation to disclose all outside business activity situations and to ensure compliance with the Employee Code of Conduct. Through individual meetings with management, staff have also been advised of their responsibility to avoid any actual or perceived conflicts of interest.

Management: % complete *%*

OAG's Follow-up Audit Findings regarding Recommendation 11

Management has addressed this issue through the use of the revised Code of Conduct. Mr. Bell is no longer with the City, so no further action is required. Other employees continue to work with Partham.

OAG: % complete *100%*

Management Representation of Status of Implementation of Recommendation 11 as of Spring 2011

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

In response to the OAG's finding that "other employees continue to work for Partham", as noted in the Management Representation of the Status of Implementation as of September 30, 2010, as a result of a new management structure, any real or perceived conflicts of interest have been addressed. Staff have been reminded of their obligation to disclose all outside business activity situations and to ensure compliance with the Employee Code of Conduct.

Management: % complete *100%*

2008 Recommendation 12

That the City identify work units whose work can be effectively conducted off-site from 175 Loretta or sub-contracted to the private sector as a means of relieving the pressures of core divisional activities and reduce the need for just-in-time materials supply and improved storage.

2008 Management Response

Management agrees with this recommendation. Currently, there are traffic sign and pavement marking crews operating off-site from 175 Loretta at three different roads and maintenance facilities throughout the City; however, by Q1 2010, the Roads and Traffic Operations branch will review opportunities for locating additional work units off-site and will explore further opportunities to contract out work unit activities within the parameters of the applicable collective agreements.

Management Representation of the Status of Implementation of Recommendation 12 as of September 30, 2010

Staff reviewed options for locating additional work units off-site and/or contracting out and determined there would be no benefits gained in terms of relieving the pressures of core divisional activities.

Material such as traffic signal duct is no longer stored at Loretta. Purchase and supply of this material is now the responsibility of the individual contractors. In addition, there have been significant improvements achieved by Stores staff at Loretta with regard to space management during 2010.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 12

We found that management has conducted a thorough review of interior and exterior environments, and that some work units previously housed at the 175 Loretta Avenue site have been moved to other City-owned facilities. Traffic Operations unit amalgamation with the Roads, Traffic Operations and Maintenance Branch has offered added space under a single management structure (Roads, Traffic Operations and Maintenance Branch).

OAG: % complete *100%*

2008 Recommendation 13

That the Traffic Operations Division maintain a staff of highly qualified individuals to oversee and police contractual obligations for contract delivery of street lighting services.

2008 Management Response

Management agrees in principle with this recommendation. Lessons learned from the first five years of the street light maintenance contract will be incorporated into

future discussions regarding the extension of that contract scheduled for Q3 2010. The future direction of this contract is being led by the General Manager of the Public Works department.

Management Representation of the Status of Implementation of Recommendation 13 as of September 30, 2010

The Street Light Asset Management unit has a full-time, PEO certified engineer in addition to all project coordinators having professional accreditation through the Ontario Association of Certified Technicians and Technologists (OACETT).

This pool of highly qualified staff possess the necessary skill set to effectively provide the required contract management for the delivery of street lighting maintenance services by a third party.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 13

We found that a number of key issues previously outstanding between the City and the private sector street lighting contractor have been addressed. Under a recent reorganization, responsibility for municipal street lighting contract oversight and work now falls under the Roads, Traffic Operations and Maintenance Branch.

OAG: % complete **100%**

2008 Recommendation 14

That the City undertake a full review of the current 'do it ourselves' procurement model, with a view to shifting the cost of research and development as well as material purchasing and handling to the private sector. More particularly, where continued procurement of locally developed technology is justified, it is recommended that the City initiate a process to introduce healthy private sector competition in the supply chain; and that a long range plan for traffic control signals control and communications be developed that reduces City of Ottawa risk by soliciting expertise from a broad base of traffic control experts and manufacturers.

2008 Management Response

Management agrees in principle with this recommendation; however, it is important to note that the decision to move towards a 'do it ourselves' model was based in large part on a lack of both a commitment from the private sector and the technical support needed to maintain and expand their products in a timely and cost-effective manner due to the relatively small niche market and the complications associated with bringing different technology processes together. Details and a full rationale are contained in the Transportation System Management (TSM) Working Paper, prepared for the former Region of Ottawa-Carleton's Transportation Master Plan in 1997.

The 'do it ourselves' approach is not unique to Ottawa: other cities, such as San Francisco, Los Angeles, New York City and Winnipeg, are using the same approach. However, Supply Management will work with Roads and Traffic Operations and Maintenance to undertake a full review of the current 'do it ourselves' procurement model by Q1 2010 with the objective of shifting the cost of research and development, as well as material purchasing and handling, to the private sector. A further objective will be to introduce healthy private sector competition in the supply chain, with the goal of safeguarding the City's future ability to meet traffic operations technology needs and to achieve best value.

Management Representation of the Status of Implementation of Recommendation 14 as of September 30, 2010

In conjunction with Supply Management, Traffic Operations have reviewed engineering services acquisition and are confident that the current practice is providing best value to the City. This was supported and corroborated by the external "Traffic Operations high-level security threat risk assessment (TRA)" audit completed in Q4 2009.

Tendering processes for traffic controller cabinets and traffic controller systems in 2008 and 2009 have been successful in opening up competition and significantly reducing the risk for the City. Traffic materials are no longer supplied to contractors under City contracts and must be purchased by the contractor.

Legal Services completed a review of the City's standard terms and conditions in September 2010 and revisions will be incorporated in all of the City's standard contracts in the fall of 2010.

Management: % complete

100%

OAG's Follow-up Audit Findings regarding Recommendation 14

The Traffic Operations Unit has reviewed their approach with Supply Branch management and agreed to continue their existing general approach, with some greater involvement by the private sector.

An example of successful procurement of private sector competition in Traffic Signals occurred in 2010 when the Traffic Operations Unit and City Supply Branch staff let a competition for the provision of traffic control units (computer control cards). Staff reports that this competitive process netted an 18% savings over 2009 purchasing price for these parts under the "Do-It-Ourselves" sole-sourcing model. This represents a savings of approximately \$49,000 per year over the previous sole-sourced contract.

To further capitalize on private sector efficiencies, the Traffic Operations Unit could accelerate outsourcing of works and material associated with the Traffic Operations. For complex technical acquisitions, management must provide direction as to whether City of Ottawa technical standard standards are first developed (as

baseline condition needed for wider uptake by private sector vendors) or whether the City should forego this type of activity and seek private sector services based on more broadly stated measurable traffic system performance characteristics (leaving technical innovation of traffic controllers and associated research, development and manufacturing capitalization in the hands of the private sector). To advance opportunities for expanded private sector involvement in Traffic Operations, management should investigate the readiness of the marketplace through discussions with key private sector players, pre-qualifications, etc.

OAG: % complete

100%

2008 Recommendation 15

That the City develop a formal inventory of regulatory and non-regulatory roadway signage for all City roadways.

2008 Management Response

Management agrees in principle with this recommendation. Staff are currently developing a procedure for labeling and tracking newly-issued regulatory signs which will be completed by Q1 2010. In addition, the Roads and Traffic Operations and Maintenance branch will identify the financial impacts of, and timeframe associated with the development of a formal inventory system for all roadway signage by Q2 2010.

Management Representation of the Status of Implementation of Recommendation 15 as of September 30, 2010

Management feels that significant staff resources and/or outside contractors would be required to make any tangible progress on this recommendation. Staff focus continues to be on field service delivery, which is the priority. A literature review including mobile technology requirements and software applications has been completed. Consultations with internal stakeholders such as the GIS and MMS groups have also taken place.

Management: % complete

15%

OAG's Follow-up Audit Findings regarding Recommendation 15

Through discussions with Traffic Operations unit it was confirmed that the Branch continues to rely on a signs inventory management system that relies extensively on staff recollection. Investigations into the development of a GIS (Geographic Information System) inventory systems for regulatory signage is reported to be in preliminary stages only. The Branch confirms that it does not intend to keep records of non-regulatory signage.

OAG: % complete

15%

Management Representation of Status of Implementation of Recommendation 15 as of Spring 2011

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

Staff focus continues to be on field service delivery and the completion of the Transportation System Management Five-Year Strategic Plan, which are the priorities.

The Roads and Traffic Operations and Maintenance branch will assess the feasibility of this recommendation by Q1 2012.

Management: % complete *15%*

2008 Recommendation 16

That the City meet all regulations and best practices related to ensuring the inspection and maintenance of minimum condition standards for regulatory /traffic control signage.

2008 Management Response

Management agrees with this recommendation. The Roads and Traffic Operations and Maintenance branch will continue to develop and refine a series of policies, procedures, manuals and best practices with respect to the inspection, maintenance, manufacture and installation of all regulatory, warning, guide and information signs in order to ensure that appropriate signage standards are achieved in conjunction with the Ontario Traffic Manual and the Ontario Highway Traffic Act.

Management Representation of the Status of Implementation of Recommendation 16 as of September 30, 2010

As per the management response, this is an ongoing process. The Roads and Traffic Operations and Maintenance branch continues to refine policies, procedures, manuals and best practices to ensure that appropriate signage standards are achieved.

Management: % complete *100%*

OAG's Follow-up Audit Findings regarding Recommendation 16

The follow-up audit review of this matter confirmed that regular inspection of signage has been re-initiated.

OAG: % complete *100%*

2008 Recommendation 17

That the City report to Council on staffing levels required to meet current demand for all areas of activity directed by City Council approved policy, Provincial Legislation/Regulations and industry best practices, with an explanation of risks to the Corporation should Council decide to provide reduced staffing levels than required to meet minimum standards.

2008 Management Response

Management agrees with this recommendation. Council will be presented with a comprehensive report identifying budget and resource requirements in Q3 2010.

Management Representation of the Status of Implementation of Recommendation 17 as of September 30, 2010

The report referred to in the management response will not be presented in Q3 2010. This information will be included as part of the five-year strategic plan scheduled to be tabled at Committee and Council by the end of Q2 2011 (see Recommendation 2).

Management: % complete *50%*

OAG's Follow-up Audit Findings regarding Recommendation 17

Senior Management confirmed that Traffic Operations is on schedule to bring forward a report on minimum staff resources to meet legal compliance and best-practices in Q2 2011.

OAG: % complete *50%*

Management Representation of Status of Implementation of Recommendation 17 as of Spring 2011

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

The Roads and Traffic Operations and Maintenance branch is developing the Transportation System Management Five-Year Strategic Plan, which will be presented to Council in Q3 2011. The plan will identify minimum staff resources to meet legal compliance and best-practices.

Management: % complete *50%*

2008 Recommendation 18

That the City undertake a review of the procurement practices in place within the Traffic Operations Division in the areas of engineering services acquisition; traffic controllers hardware and software purchasing; and, material purchasing (in lieu of specifications development) to ensure that the City's best interests are met and that the current practice does not expose the City to unreasonable additional costs or risk assignment.

2008 Management Response

Management agrees with this recommendation. Supply Management will work with Roads and Traffic Operations and Maintenance to develop a supply chain strategy by the end of Q1 2010 for the acquisition of engineering services, traffic controller hardware and software and associated materials with the goal of safeguarding the City's future ability to meet traffic operations technology needs and to achieve best value. Staff will also work with Legal Services to ensure that any necessary changes are incorporated into the terms of the City's standard contracts.

Management Representation of the Status of Implementation of Recommendation 18 as of September 30, 2010

In conjunction with Supply Management, Traffic Operations have reviewed engineering services acquisition and are confident that the current practice is providing best value to the City. This was supported and corroborated by the external "Traffic Operations high-level security threat risk assessment (TRA)" audit completed in Q4 2009.

Tendering processes for traffic controller cabinets and traffic controller systems in 2008 and 2009 have been successful in opening up competition and significantly reducing the risk for the City. Traffic materials are no longer supplied to contractors under City contracts and must be purchased by the contractor.

Legal Services completed a review of the City's standard terms and conditions in September 2010 and revisions will be incorporated in all of the City's standard contracts in the fall of 2010.

Management: % complete

100%

OAG's Follow-up Audit Findings regarding Recommendation 18

A complete review of risk analysis reports pertaining to Traffic Operations was undertaken. Due to the scope of work assigned to the external risk evaluators, the findings of the report addressed risk to the City of Ottawa traffic control system in broad terms. It is noteworthy that while the 2008 audit noted that relying on a single private supplier (Thompson Technologies) for the design, testing and manufacturing oversight of the computer systems that control traffic in the City of Ottawa, left the City open to risk substantial procurement problems; the risk report procured by the City of Ottawa praised the innovative capabilities of this long-term sole-source contractor.

We also note that reduction of the City's risk exposure has been made through other efforts recently undertaken by Traffic Operations staff. In particular, City of Ottawa technical standards for some traffic controller parts were developed as part of a competitive procurement process (see OAG comments on Recommendation 14

above). This is an improvement over past practice where technical manufacturing and performance standards were left in the hands of the private sector alone.

OAG: % complete **100%**

2008 Recommendation 19

That the City explore opportunities to derive profits from technologies sales and services derived from the development of existing and future technology and products developed through City of Ottawa research and development funding, and, in particular, products developed by Thompson Technologies, Luxcom, Multilek and/or Rogers Digital Communications while under contract to the City.

2008 Management Response

Management agrees with this recommendation. The Roads and Traffic Operations and Maintenance branch has asked IBM to examine the possibility of generating revenue from the use of the City's intellectual property rights as part of the Corporate Efficiency Review, recognizing the legal limits of the City's ability to generate profits and the practical difficulties associated with the management and marketing of the City's intellectual property. IBM is expected to report on its findings by Q3 2009.

Management Representation of the Status of Implementation of Recommendation 19 as of September 30, 2010

PPI Consultants Group were retained in March 2010 to review the City's option to explore the possibilities of generating revenue from the use of the City's intellectual property rights as part of the Corporate Efficiency Review.

The outcome of the consultants' findings was that the City does not have the support structure in place to take the technologies to market and solicit sales, nor the technical support to follow-up with potential purchasers. After review and discussion of the consultants' findings with the Deputy City Manager and General Manager, management has decided not to pursue this recommendation further. As a result, no changes will be made to business practices in this regard.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 19

As noted above, the City did retain a consultant to review options to derive potential revenue from the City's intellectual property rights.

OAG: % complete **100%**

2008 Recommendation 20

That the City develop a long range plan for the design and sourcing of traffic controller and communications equipment (through standard competitive

processes) and that contracts with successful firms include a significantly reduced degree of risk for the City (e.g., private sector involvement in R&D funding; Public-Private Partnership, etc.), or, if technology is developed at the cost and risk of the City, that the ownership, application rights and proceeds of R&D is wholly owned by the municipal corporation, with the City maintaining detailed full specifications of all R&D products to allow for the City's use in future competitive contracts.

2008 Management Response

Management agrees with this recommendation. Supply Management and Roads and Traffic Operations and Maintenance have taken significant steps to open up competitive bidding on traffic controllers in the past year. There are now two competing suppliers for traffic controllers.

Supply Management will continue to work with Roads and Traffic Operations and Maintenance to develop a sourcing plan for the acquisition of traffic controllers and communication equipment by Q1 2010, with the goal of increasing competition in order to net more competitive pricing, properly allocate risks between the supplier and the City, and explore options for ownership of technology.

Legal Services, in cooperation with Supply Management and Roads and Traffic Operations and Maintenance, will review the standard terms and conditions of contracts on an ongoing basis to ensure they fully protect the City's intellectual property interests.

Management Representation of the Status of Implementation of Recommendation 20 as of September 30, 2010

Tendering processes for traffic controller cabinets and traffic controller systems in 2008 and 2009 have been successful in opening up competition and significantly reducing the risk for the City.

Legal Services completed a review of the City's standard terms and conditions in September 2010 and revisions will be incorporated in all of the City's standard contracts in the fall of 2010. Legal Services has confirmed that the standard terms and conditions fully protect the City's intellectual property interests on traffic contracts.

Management: % complete **100%**

OAG's Follow-up Audit Findings regarding Recommendation 20

We agree with the above status. We note however, that the Traffic Operations unit shift toward increased private sector competition in the supply of material and services will require the continued development of City standards on a broad range of goods and services.

OAG: % complete **100%**

4 SUMMARY OF THE LEVEL OF COMPLETION

The table below outlines our assessment of the level of completion of each recommendation conducted in January 2011. Subsequently, management's response in the Spring of 2011 was in agreement with that assessment.

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

5 CONCLUSION

This follow-up audit recognizes that Traffic Operations Division (now Roads, Traffic Operations and Maintenance Branch) has undergone substantial change in management structure since 2008 including a comprehensive change in persons occupying the three tiers of management responsibility over the Branch. Overall, the Traffic Operations Branch has partially to fully implemented 95% of the 2008 audit recommendations.

Substantial achievement was in evidence, as follows:

- Action has been initiated to alleviate over-crowding of staff and material handling activities at the 175 Loretta Avenue facility. The amalgamation of Traffic Operations with Roads and Maintenance has facilitated the sharing of various City of Ottawa yards and buildings.
- Staff reported positive change in the handling of Streetlight contracts. Staff resources have been rationalized and the Street Lighting work unit now reports to the Manager of Roads, Traffic Operations and Maintenance Branch.
- Field testing of regulatory signs minimum retro-reflectivity has been reinstated by Traffic Operations.
- Progress has started in the development of a Performance Measures (PM) system within Traffic Operations. A framework approach for reporting on unit performance has been developed and presentation of a complete PM system is expected in 2012.
- The Strategic Plan for the Unit is currently under development based on a Terms of Reference presented to Council in 2009.

- Management has started seeking alternative private sector involvement in personnel and material resourcing. Staff reported an initial effort at private sector competition in material supply that resulted in an approximately 18% reduction in unit costs on some traffic controller equipment, representing an annual savings of approximately \$49,000 over previous sole-sourced contracts. Management should continue to look for opportunities for cost-effective alternate procurements in other areas.
- Efforts have been taken by Traffic Operations staff to document technical manufacturing standards for some traffic controller equipment. This development of written technical standards is required when considering private sector competitive bids for supply, and also represents a transfer back to the City of technology developed through its traffic controller research and development program.
- Management made efforts to reduce overtime, but overtime costs remain generally high and many of the individual staff members identified as very high overtime earners in the 2008 audit continue to earn significant overtime-related compensation in 2010. For both 2009 and 2010, total actual overtime was over budget in the Division. Management indicates that the variance in 2010 was primarily attributable to the additional work created by the economic stimulus funding the City received which the Traffic Operations Division had to support and respond to.

6 ACKNOWLEDGEMENT

We wish to express appreciation to the staff and management for their cooperation and assistance throughout the audit process.