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Ministry of Education
Effectiveness & Efficiency
Review

Ottawa Student Transportation
Authority

E&E Phase 4 Review

November 2010

Final Report

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The English version is the official version of this report. In the situation where there are differences between the English and French versions of this report, the English version prevails.

À noter que la version anglaise est la version officielle du présent rapport. En cas de divergences entre les versions anglaise et française du rapport, la version anglaise l'emporte.

Executive Summary

This report details the findings and recommendations of an Effectiveness and Efficiency Review (“E&E Review”) of the Ottawa Student Transportation Authority (hereafter “OSTA” or “the Consortium”) conducted by a review team selected by the Ministry of Education (hereafter the “Ministry”). The E&E Review evaluates four areas of performance – Consortium Management, Policies and Practices, Routing and Technology, and Contracting – to determine if current practices are reasonable and appropriate; to identify whether any best practices have been implemented; and to provide recommendations on areas of improvement. The evaluation of each area is then used to determine an overall rating for the Consortium that will be used by the Ministry to determine any in-year funding adjustments that may be provided.

The review of Consortium Management found that the Consortium has been established as a separate legal entity and has set up a governance structure to ensure the accountability, transparency and responsiveness of the governance body to stakeholder needs. While the Consortium has taken a number of significant positive steps, improvements are necessary in various areas under Consortium Management. In particular, the Consortium should ensure that there is clear separation of oversight and operational responsibilities and that there is appropriate delegation of authority to empower the Consortium with the authority to facilitate, manage and communicate to employees the changes necessary to transition the Consortium to the level expected of a highly effective and efficient body. Given the size of OSTA and the type of transformation and development that OSTA currently faces, it is of prime importance for OSTA to have a complete and strong management team. The filling of the Assistant General Manager’s position is highly recommended since the employee is on indefinite leave.

The review of the Consortium’s Policies and Practices found that while the Consortium has made progress on developing policy and practice documentation, much of this is only recently adopted and actual operating practices are not in full compliance. Effectiveness and efficiency can be improved by providing Consortium staff with a clearly defined operational framework, which requires thoroughly documented and clearly articulated standards of service. Implementing a robust framework can facilitate the consistent application of policies, reduce exceptions, and improve the coordination and standardization of operational practices.

The review of the Consortium’s Routing and Technology found that there are many positive elements to the Consortium’s transportation network and the routing and technology backbone from which it is managed, including the quality of the digital map in the routing software and the competence of the users. The system is effective, and capacity and asset utilization levels are appropriate. However, improvements can be made through reorganization of the special needs routing function and approach, judicious bell time realignments, re-evaluation of the policy justification for courtesy riders, and pursuit of further run and route integration between the Member Boards.

The Consortium’s Contracting practices have some positive elements, such as standardized contracts. However, changes are required and the primary areas for improvement include the modification of its contracts to incorporate relevant clauses and complete driver safety training, the implementation of competitive procurement processes for operator services, and the implementation of a comprehensive, documented, governance-approved process for ensuring operator compliance and on-the-road safety and service monitoring.

As a result of this review of current performance, the Consortium has been rated Moderate-Low. Based on this evaluation, the transportation allocation for the Ottawa-Carleton District School Board (“OCDSB”) and the Ottawa Catholic School Board (“OCBSB”) will remain unchanged in the 2010-11 school year.

1 Introduction

1.1 Background

1.1.1 Funding for student transportation in Ontario

The Ministry provides funding to Ontario's 72 School Boards for student transportation. Under Section 190 of the *Education Act* (Act), School Boards "may" provide transportation for pupils. If a School Board decides to provide transportation for pupils, the Ministry will provide funding to enable the School Boards to deliver the service. Although the Act does not require School Boards to provide transportation service, all School Boards in Ontario provide service to eligible elementary students and most provide service to eligible secondary students. It is a School Board's responsibility to develop and maintain its own transportation policies, including safety provisions.

In 1998-1999, a new education funding model was introduced in the Province of Ontario outlining a comprehensive approach to funding School Boards. However, a decision was made to hold funding for student transportation steady, on an interim basis, while the Ministry worked to develop and implement a new approach. From 1998-1999 to 2010-2011, an increase of over \$267 million in funding has been provided to address increasing costs for student transportation, such as fuel price increases, despite a general decline in student enrolment.

1.1.2 Transportation reform

In 2006-07, the government began implementing reforms for student transportation. The objectives of the reforms are to build capacity to deliver safe, effective, and efficient student transportation services, achieve an equitable approach to funding, and reduce the administrative burden of delivering transportation, thus allowing School Boards to focus on student learning and achievement.

The reforms include a requirement for consortium delivery of student transportation services, effectiveness and efficiency reviews of transportation consortia, and a study of the benchmark cost for a school bus incorporating standards for safe vehicles and trained drivers.

1.1.3 The formation of school transportation consortia

Ontario's 72 School Boards operate within four independent systems:

- English public;
- English separate;
- French public; and
- French separate.

As a result, a geographic area of the province can have as many as four coterminous School Boards (i.e., Boards that have overlapping geographic areas) operating schools and their respective transportation systems. Opportunities exist for coterminous School Boards to form a consortium and therefore deliver transportation for two or more coterminous School Boards in a given region. The Ministry believes in the benefits of consortia as a viable business model to realize efficiencies. This belief was endorsed by the Education Improvement Commission in 2000 and has been proven by established consortium sites in the province. Currently, the majority of School Boards cooperate to some degree in delivering transportation services. Cooperation between School Boards occurs in various ways, including:

- One School Board purchasing transportation service from another in all or part of its jurisdiction;
- Two or more coterminous School Boards sharing transportation services on some or all of their routes; and
- Creation of a consortium to plan and deliver transportation service to students of all partner School Boards.

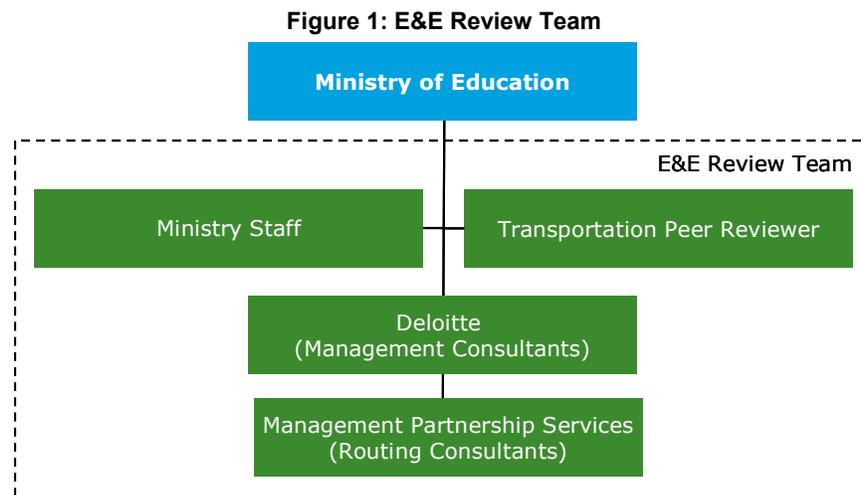
Approximately 99% of student transportation service in Ontario is provided through contracts between School Boards or transportation consortia and private transportation operators. The remaining 1% of service is provided using Board-owned vehicles to complement services acquired through contracted private transportation operators.

1.1.4 Effectiveness and Efficiency Review

According to the Ministry consortium guidelines, once a consortium has met the requirements outlined in memorandum SB: 13, dated July 11, 2006, it will be eligible for an E&E review. This review will be conducted by the E&E Review Team who will assist the Ministry in evaluating Consortium Management; Policies and Practices; Routing and Technology; and Contracts. These reviews will identify best practices and opportunities for improvement and will provide valuable information that can be used to inform future funding decisions. The Ministry has established a multi-phase approach to review the performance of consortia (collectively the “E&E Reviews”) across the province.

1.1.5 The E&E Review Team

To ensure that these reviews are conducted in an objective manner, the Ministry has formed a review team (see Figure 1) to perform the E&E Reviews. The E&E Review Team was designed to leverage the expertise of industry professionals and management consultants to evaluate specific aspects of each consortium site. Management consultants were engaged to complete assessments on Consortium Management and Contracts. Routing consultants were engaged to focus specifically on the acquisition, implementation, and use of routing software and related technologies and on policies and practices.



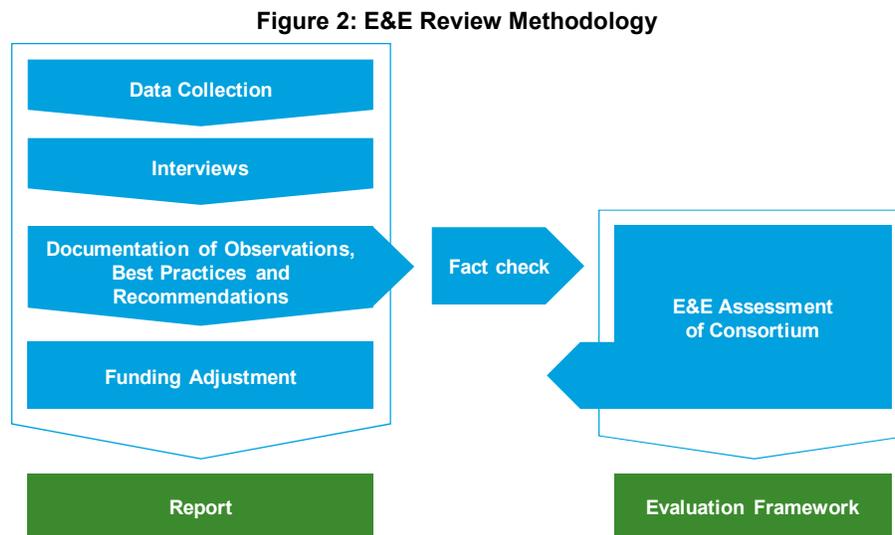
1.2 Scope of Deloitte Engagement

Deloitte was engaged to lead the Team and serve as the management consultants on the E&E Review Team. Deloitte’s overall role is as follows:

- Lead the planning and execution of E&E Reviews for each of the 18 transportation consortia to be reviewed in Phases Three and Four (currently in phase 4);
- At the beginning of each E&E Review, convene and moderate E&E Review Team planning meetings to determine data required and availability prior to the review;
- Review consortium arrangement, governance structures and contracting procedures;
- Incorporate the results of the routing and technology and policies and practices reviews completed by MPS into the final report; and
- Prepare a report for each consortium that has been subject to an E&E Review in Phases three and four. The target audience for the report will be the Ministry, the consortium, and its Member School Boards. Once finalized, each report will be released to the consortium and its Member School Boards.

1.3 Methodology Used to Complete E&E Review

The methodology for the E&E Review is based on the six step approach presented in Figure 2 and elaborated on below:



A site review report that documents the observations, assessments and recommendations is produced at the end of a site review. The Evaluation Framework has been developed to provide consistency and details on how the Assessment Guide was applied to reach an Overall Rating of each site.

1.3.1 Step 1 – Data collection

Each consortium under review is provided with the E&E Guide from the Ministry of Education. This guide provides details on the information and data the E&E Review Team requires the consortium to collect organize and provide.

Data is collected in four main areas:

1. Consortium Management;
2. Policies and Practices;
3. Routing and Technology; and
4. Contracts.

1.3.2 Step 2 – Interviews

The E&E Review Team identifies key consortium staff, outside stakeholders and key policy makers with whom interviews are conducted to further understand the operations and key issues impacting a consortium's delivery of effective and efficient student transportation services.

1.3.3 Step 3 – Documentation of Observations, Best Practices and Recommendations

Based on data collected and interviews conducted, the E&E Review Team documents their findings under three key areas:

- Observations that involve fact based findings of the review, including current practices and policies;
- Best Practices used by the consortium under each area; and

- Recommendations for improvements based on the Assessment Guide. Figure 3 below provides a summary of the key criteria used in the Assessment Guide to determine the effectiveness and efficiency of each consortium.

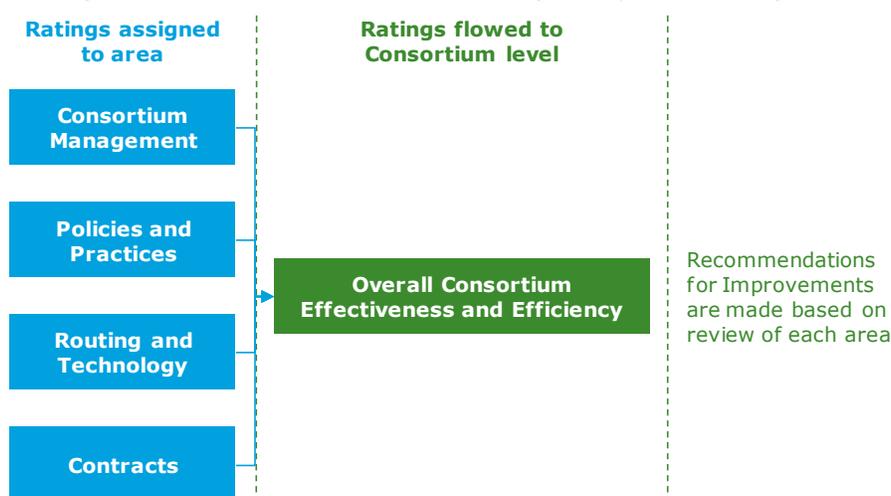
Figure 3: Criteria for an Effective and Efficient consortium

Consortium management	Policies and Practices	Routing and Technology	Contracts
<ul style="list-style-type: none"> • Distinct entity focused on providing student transportation services for member boards • Well defined governance and organizational structure with clear roles and responsibilities • Oversight body exists with the mandate to provide strategic directions to Consortium management on the provision of safe, effective and efficient transportation service to support student learning • Management has communicated clear goals and objectives of the Consortium and these are reflected in the operational plan • The Consortium takes a comprehensive approach to managing human resources • Well established accountability framework reflected in the set up and operation of the Consortium including documentation of terms in a Consortium Agreement • Operations are regularly monitored and performance continually improved • Financial processes ensure accountability and transparency to member boards • A budgeting process is in place ensuring timely preparation and monitoring of expenses • All of the Consortium's key business relationships are defined and documented in contracts • Governance committee focuses only on high level decisions • Organizational structure is efficient and utilizes staff appropriately • Streamlined financial and business processes • Cost sharing mechanism is well defined and implemented • The Consortium has appropriate, documented procedures and confidentiality agreements in place governing the use of student data and ensuring compliance with <i>Freedom of Information and Privacy</i> legislation 	<ul style="list-style-type: none"> • Safety programs are established for all students using age appropriate training tools • Development of policies is based on well defined parameters dictated by the strategic goals of the governance structure and Consortium Management operating plans • A mechanism is defined to allow for regular review and consideration of policy and practice changes to address environmental changes • Established procedures allow for regular feedback on the impact that current and proposed policy and procedural changes would have on costs, safety and service levels • Regular monitoring and evaluation of policy expectations is conducted to ensure their continued relevancy and service impacts • Enforcement procedures are well defined and regularly executed with timely follow-up • Harmonized transportation policies incorporate safety, operational and cost considerations • Position-appropriate delegation of decisions to ensure the efficiency of decision making • Operational alternatives to traditional practices are considered and implemented where reasonable and appropriate • Service levels are well defined, considerate of local conditions, and understood by all participating stakeholders • Policy and practice modifications for students with special needs are considered in terms of both the exceptionality and its service and cost impacts 	<ul style="list-style-type: none"> • Transportation management software has been implemented and integrated into the operational environment • Key underlying data sets (e.g., student and map data) are regularly updated: • Responsibility and accountability for the updates is clearly defined and performance is regularly reviewed • Coding structures are established to facilitate scenario modeling and operational analysis of designated subgroups of students, runs, schools, etc. • Procedures are in place to use software functionality to regularly evaluate operational performance and model alternatives to traditional practices • Disaster recovery plans and back up procedures are established, performed regularly, and tested • Operational performance is regularly monitored through KPI and reporting tools are used to distribute results to appropriate parties • Technology tools are used to reduce or eliminate manual production and distribution activities where possible in order to increase productivity • Training programs are established in order to increase proficiency with existing tools • Route planning activities utilize system functionality within the defined plan established by Consortium management 	<ul style="list-style-type: none"> • Contracts exist for all service providers, including taxi, boat and/or municipal transit services and parent drivers • Contracts are structured to ensure accountability and transparency between contracted parties • All operator contracts are complete with respect to recommended clauses • Compensation formulae are clear • Operator contracts are in place prior to the start of the school year • Procurement processes are conducted in line with the Consortium's procurement policies and procurement calendar • The Consortium has laid the groundwork for, or is actively using, competitive procurement processes • Proactive efforts are made to ensure operator contract compliance and legal compliance • The Consortium collects and verifies information required from operators in contracts • The Consortium actively monitors and follows up on operator on-the-road performance using random, documented route audits or their equivalent • The Consortium avoids using School Board owned vehicles

1.3.4 Step 4 and 5 – E&E assessment of consortium and site report

The Assessment Guide was developed to enable the E&E Review Team to provide each consortium that undergoes an E&E Review with a consistent, fair, and transparent method of assessment. The Assessment Guide is broken down along the four main components of review (i.e., Consortium Management, Policies and Practices, Routing and Technology, and Contracts) and, for each, illustrates what constitutes a specific level of effectiveness and efficiency (refer to Figure 4 for diagram of process).

Figure 4: Assessment of consortia - Ratings Analysis and Assignment



The Evaluation Framework provides details on how the Assessment Guide is to be applied, including the use of the Evaluation Work Sheets, to arrive at the final Overall Rating. The E&E Review Team then compiles all findings and recommendations into an E&E Review Report (i.e., this document).

1.3.5 Funding adjustment

The Ministry will use the results of the E&E Reviews and the cost benchmark study to inform any future funding adjustments. Only School Boards that have undergone E&E Reviews are eligible for a funding adjustment. Table 1 below illustrates how the Overall Rating will affect a Board's transportation expenditure-allocation gap.

Table 1: Funding Adjustment Formula

Overall Rating	Effect on deficit Boards ¹	Effect on surplus Boards ¹
High	Reduce the gap by 100% (i.e. eliminate the gap)	No in-year funding impact; out-year changes are to be determined
Moderate-High	Reduce the gap by 90%	Same as above
Moderate	Reduce the gap by 60%	Same as above
Moderate-Low	Reduce the gap by 0%	Same as above
Low	Reduce the gap by 0%	Same as above

The Ministry has announced, through memorandum 2009:B2 dated March 27, 2009, that effective from the 2009-2010 school year, in addition to the funding adjustments made based on the overall E&E rating, for any consortium not achieving a high rating in Routing and Technology, a negative adjustment of one percent to a Board's transportation allocation will be made to recognize potential efficiencies through ongoing routing optimization and technology use. To acknowledge sites whose systems are already operating in an efficient manner, the adjustment will only apply to School Boards that have not achieved a "high" rating in Routing and Technology from the Effectiveness and Efficiency reviews. School Boards that achieve a "high" rating in the Routing and Technology area in future reviews will be exempt from the reduction in the subsequent year.

1.3.6 Purpose of report

This Report serves as the deliverable for the E&E Review conducted on the Consortium by the E&E Review Team during the week of November 8, 2010.

1.3.7 Materials relied upon

Refer to Appendix 3 for a list of documents that the E&E Review Team relied upon for their review. These documents were used in conjunction with interviews with key Consortium staff, outside stakeholders, and key policy makers to arrive at the assessment and rating of the Consortium.

1.3.8 Limitations on the use of this report

The purpose of this Report is to document the results of the E&E Review of the consortium. The E&E Review is not of the nature or scope so as to constitute an audit made in accordance with generally accepted auditing standards. Therefore, as part of this E&E Review, Deloitte has not expressed an opinion on any financial statements, elements, or accounts to be referred to when reporting any findings to the Ministry. Additionally, procedures used by the E&E Review Team are not intended to disclose defalcations, system deficiencies, or other irregularities.

¹ This refers to Boards that have a deficit/surplus on student transportation (see Section 7 – Funding Adjustments)

2 Consortium Overview

2.1 Consortium Overview

The Ottawa Student Transportation Authority was incorporated as a separate legal entity in October 2007. The Consortium provides student transportation services for its two Member Boards: the Ottawa-Carleton District School Board and the Ottawa Catholic School Board.

The Consortium provides transportation services to more than 59,000 elementary and secondary school students using over 1,770 school buses and small vehicles. The service area covers 2,760 square kilometres and includes 249 elementary and secondary schools, with transportation services provided by sixteen different operators.

The geographic area covered by the Consortium is the city of Ottawa with a combination of urban, suburban and rural areas, with the service area encompassing a portion of the National Capital Region located in Ontario.

The Consortium is also responsible for coordinating and managing the transportation of students enrolled in English Language Provincial and Demonstration Schools (“Provincial Schools”). In this role, the Consortium provides transportation services to an additional 400 high-needs elementary and secondary school students located across the Province of Ontario.

Table 2 and Table 3 below provide a summary of key statistics and financial data of each Member Board:

Table 2: 2009-10 Transportation Survey Data²

	OCDSB	OCSB	Total Consortium
Number of schools served	146	80	226
Total general transported students	11,087	11,620	22,707
Total special needs ³ transported students	2,174	519	2,693
Total wheelchair accessible transportation	89	102	191
Total specialized program ⁴ transportation	13,075	7,128	20,203
Total courtesy riders	3,645	976	4,621
Total hazard riders	992	1,763	2,755
Total students transported daily	31,062	22,108	53,170
Total public transit riders	1,979	3,507	5,486
Total students transported including transit riders	33,041	25,615	58,656
Total contracted full and mid-sized buses ⁵	521	377	897
Total contracted mini buses	86	31	117
Total contracted school purpose vehicles ⁶	453	161	614
Total contracted PDPV		5	5
Total contracted taxis	0	0	0
Total number of contracted vehicles	1,059	574	1,633

Table 3: 2009-2010 Financial Data

	OCDSB	OCSB
Allocation	\$32,559,391	\$23,615,978
Net expenditures	\$36,034,320	\$22,394,650
Transportation surplus (deficit)	(\$3,474,929)	\$1,221,328

² Data reported in this section of the report may be inconsistent with data presented in other sections due to the different timing of data collection. Data reported in this section of the report includes noon-hour transportation.

³ Includes students requiring special transportation such as congregated and integrated special education students who require dedicated routes and/or vehicles; students who must ride alone; students who require an attendant on the vehicle

⁴ Includes students transported to French Immersion, magnet and gifted programs, students with special needs who are transported to specialized programs are captured as special needs transported students.

⁵ Includes full-sized buses, mid-sized buses, full-sized buses adapted for wheelchair use and mid-sized buses adapted for wheelchair use; all vehicle counts are rounded to the nearest whole number.

⁶ Includes school-purposed vans, mini-vans, and sedans.

3 Consortium Management

3.1 Introduction

Consortium Management encompasses the management of the entire organization providing student transportation services. The analysis stems from a review of the four key components of Consortium Management:

- Governance;
- Organizational Structure;
- Consortium Management; and
- Financial Management.

Each component has been analyzed based on information provided by the Consortium and from information collected during interviews. The analysis included an assessment of areas requiring improvement that were informed by a set of known best practices identified during previous E&E Reviews. These results are then used to develop an E&E assessment for each component. The E&E assessment of Consortium Management for the Consortium is as follows:

Consortium Management – E&E Rating: Moderate-Low

3.2 Governance

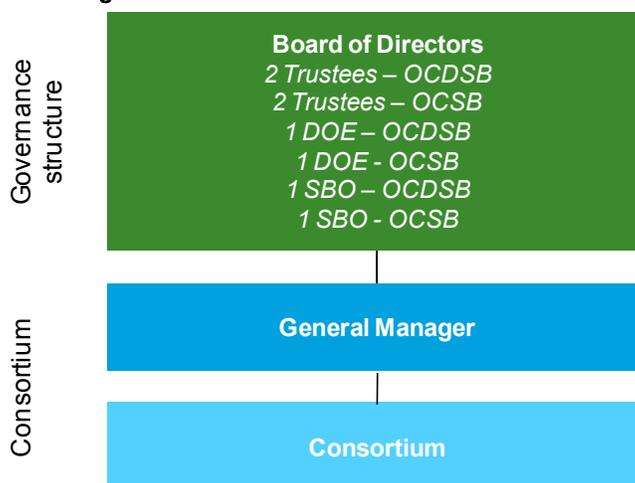
Governance refers to the way in which an organization is directed and controlled. Establishing administrative structures and processes that facilitate, monitor, measure and improve effective business management are primary responsibilities of a governance structure. Three key principles for an effective governance structure are: accountability, transparency, and the recognition of stakeholders. In order to respect these three principles, it is important that the governance body of the organization be independent of the team responsible for the day-to-day operations of the organization.

3.2.1 Observations

3.2.1.1 Governance structure

The Consortium’s governance structure is outlined in the Operating Agreement and the Consortium’s bylaws; the governance structure is illustrated below:

Figure 5: Consortium Governance Structure



The Operating Agreement and the Consortium’s bylaws outline the roles and responsibilities of the Consortium’s governance structure. The Board of Directors’ primary responsibilities are to:

- Develop the Consortium's strategic direction and policy;
- Establish the Consortium's program priorities;
- Review and approve the Consortium's annual budget;
- Approve the cost-sharing formula for transportation services;
- Foster and facilitate inter-board cooperation and sharing of information; and
- Establish and perform reviews of the Consortium's structure and remuneration schedules.

The bylaws explicitly state that the General Manager will be responsible for the Consortium's day to day operations and will regularly report to the Consortium's Board of Directors on:

- Operator contract issues;
- Negotiations with operators;
- Budget matters;
- Policy and procedure matters;
- Staffing concerns;
- Transportation issues;
- Safety issues;
- Ministry of Education and Ministry of Transportation policy directions and regulations; and
- Other matters as may be requested by the Consortium's Board of Directors.

The Board of Directors is required to meet at least once every fifteen months and generally meets once per month. Meeting agendas are set in advance of the meeting and minutes are taken during the meeting; the meeting minutes are signed and ratified.

The Consortium's bylaws indicate that the Chair of the Board will be elected by the Board of Directors; the President of the Board of Directors is typically also the Chairperson. The President and Vice-President have historically been elected from the Trustees that serve on the Consortium's Board of Directors. It should be noted that Trustees are annually selected to the Board of Directors. There is equal representation on the Board of Directors, with four individuals nominated by the OCDSB and four individuals nominated by the OCSB; quorum requires three directors from each of the Member Boards.

The Consortium's bylaws also indicate that the President will serve as the Consortium's Chief Administrative Officer and is responsible to the Board for the coordination of the Consortium's affairs.

There is a signed confidentiality agreement between the Consortium, the OCDSB and the OCSB.

3.2.1.2 Board level governance and arbitration clause

The Consortium's bylaws include a dispute resolution clause that states that disputes will be referred to a single arbitrator appointed by the Court; all decisions of the arbitrator shall be final and binding.

3.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Governance structure

The Consortium's governance structure has equal representation from each Member Board in terms of membership. Equal representation promotes fairness and equal participation in decision making and ensures the rights of each Board are considered equally.

Meetings of the Board of Directors

The Consortium's Board of Directors generally meet once a month and utilizes formal agendas; meeting minutes are taken, ratified and signed. This ensures that the Consortium is open, accountable and transparent to its stakeholders. However, the Consortium should consider modifying its bylaws to require that the Board of Directors meet more frequently than once every fifteen months. As the Board of Directors is the only oversight committee for the Consortium and is also responsible for matters that change at least annually, it would be prudent to ensure that the Board is officially required to meet more frequently to help ensure the Board continues to fulfill its oversight responsibilities.

Dispute resolution

A Member Board level dispute policy is in place between the Member Boards. The policy is an effective mechanism to protect the rights of Member Boards and will also help to ensure that decisions made represent the best interests of parties involved.

3.2.3 Recommendations

3.2.3.1 Delegation of authority

An effective governance structure calls for a clear delegation of operational authority to Consortium management. This is harder to achieve when there is a governance level position that is required to be involved in operational duties (e.g., the President serving as the Consortium's Chief Administrative Officer and being responsible to the Board for the coordination of the Consortium's affairs, or the Consortium's policy on signing authority requiring the signature of at least one director for any binding agreement, regardless of monetary value). It is therefore recommended that the Board of Directors and Consortium work to ensure that operational duties are clearly delegated to the Consortium so that the Board of Directors can focus on its oversight responsibilities. Additionally, a clear delegation of appropriate authority to the Consortium will ensure it has sufficient leeway and scope to be able to effectively execute its responsibilities.

3.2.3.2 Election of trustees to the Board of Directors

Four of the members on OSTA's Board of Directors are Trustees that are elected to the Board on an annual basis. Annual changes to the Board, and potentially an annual change to half the membership each year, can and will cause significant challenges for the Consortium in gaining and maintaining momentum for progress as the Consortium continues to evolve. We encourage the Consortium to consider measures such as extending the minimum period a Trustee can serve on the Board or developing a detailed training program for new Board Members to help ensure progress is not stalled with every membership change. The frequent potential changes to the Board membership also make it imperative that all policies, procedures, decision making, contracting and reporting for the Consortium is formally documented and appropriately approved to ensure continuity in practice and clarity of communication (further details and specific recommendations provided throughout this report).

3.3 Organizational structure

An optimized organizational structure can promote effective communication and coordination which will enable operations to run more efficiently. The roles and responsibilities within the organization should be well defined. This will lead to operational efficiencies by ensuring tasks are not being duplicated and issues raised can be addressed effectively by Consortium management. Ideally, the organization is divided functionally (by department and/or area); all core business functions are identified; and there is an appropriate allocation of general management and operational responsibility.

3.3.1 Observations

3.3.1.1 Entity Status

The Consortium was incorporated as a separate legal entity (non-share Capital Corporation) on October 24, 2007 and resides in a separate office from the Member Boards. The Consortium was incorporated with the objective of acting on behalf of its Member Boards to: "facilitate, organize and deliver safe, effective and efficient school transportation services to students in the Ottawa area." The Consortium's Bylaws were updated on May 31, 2010 to outline the General Manager's responsibilities.

The Letters Patent, Operating Agreement, and Consortium bylaws form the Consortium's foundational documents. Each of these documents is described in the following sections.

3.3.1.2 Consortium formation and agreement

Letters Patent

The Letters Patent, submitted to the Ontario Ministry of Government Services, establish the Consortium’s status as a non-share capital corporation. The document describes the objectives of the organization and outlines specific provisions related to the Consortium’s powers and abilities.

Operating Agreement and Consortium Bylaws

The Operating Agreement and Bylaws establish the relationship between the two Member Boards and details aspects of the Consortium’s structure and operations. They speak to, among other things:

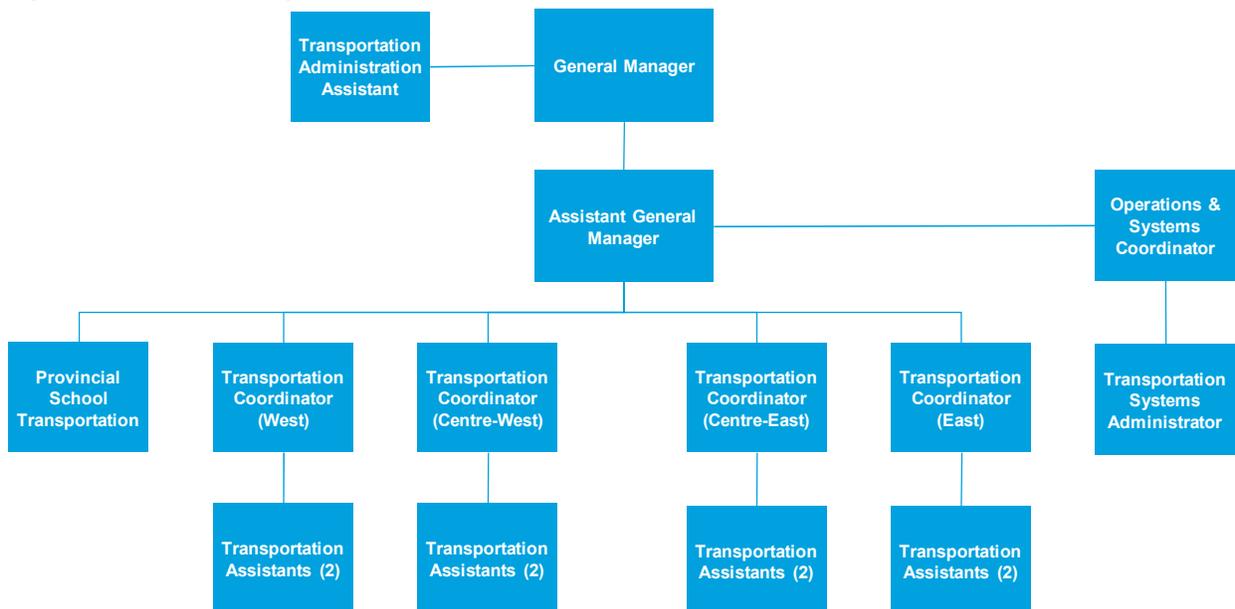
- The Consortium’s objective: to facilitate, organize and deliver safe, effective and efficient school transportation services to students in the Ottawa area;
- The Consortium’s governance structure: the composition of membership, the roles and responsibilities of the Board of Directors, the Board of Directors’ voting structure, and the General Manager’s responsibility for day to day operations of the Consortium;
- The Consortium’s ability to execute contracts: contracts requiring the Consortium’s signature require the signature of two directors (but the Board of Directors can assign this right by resolution and has assigned this right to the General Manager, where the contract’s value is under \$50,000);
- The Consortium’s finances: the cost-sharing arrangements between the Member Boards; and
- Other items related to: dispute resolution, termination rights, and indemnification provisions.

The Operating Agreement and Bylaws do not delineate who has responsibility for the provision of transportation services to students enrolled in Provincial Schools.

3.3.1.3 Organization of entity

The Consortium’s organization chart is illustrated below:

Figure 6: Consortium Organizational Structure



Job descriptions that outline each position’s specific roles and responsibilities, supervisory capacities, and required qualifications are available. Staff are directly employed by the Consortium; this recent development was facilitated by the Ontario Labour Relations Board’s recognition of the Ontario Secondary School Teachers’ Federation (“OSSTF”) as the staff’s representative bargaining unit.

The organizational chart indicates that in the absence of the General Manager, the Assistant General Manager is responsible for the Consortium’s operations. The Assistant General Manager’s position is

temporarily vacant, and the position's responsibilities have informally been delegated amongst the General Manager, the Transportation Coordinator, and the Transportation Administrative Assistant.

3.3.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Separate legal entity

The Consortium is incorporated as a non-profit corporation and is located in a different building from its Member Boards. This structure provides the Consortium with independence in terms of managing its daily operations; ensures that the structure and mandate of the Consortium remain consistent despite potential changes at the Member Board level (i.e., changes in trustees, Board members, etc.); and also provides contractual benefits to the Consortium. As a separate legal entity, the Consortium can enter into binding legal contracts, for all services purchased, including bus operators, and as such is limiting liability to Member Boards.

Operating Agreement clauses

The Operating Agreement, which acts as the legal document governing the Consortium, contains sufficient detail on key provisions such as cost sharing, dispute resolutions, oversight, and the role of the Consortium. This is important in that it clearly defines the relationship between the Member Boards in the delivery of safe, effective and efficient student transportation services.

Job descriptions

Clear and detailed job descriptions are defined for all positions within the Consortium. The availability of job descriptions helps to ensure that staff can efficiently execute on their daily duties and helps to ensure a smooth transition in the event of staff turnover. We encourage the Consortium to continue reviewing and updating job descriptions on a regular basis.

Amalgamation of staff

The Consortium has expended significant effort to amalgamate its staff under one bargaining unit. This is a positive step that will facilitate increased effectiveness and efficiency of operations because it centralizes and simplifies human resources and enhances cohesion among staff. Dealing with a single bargaining unit will also streamline the labour negotiation process and help ensure consistency in employee treatment.

3.4 Consortium Management

Consortium Management focuses on the operational aspects of the organization. This includes ensuring accountability of staff, focusing on continual improvement through operational planning, and risk management by having appropriate contracts and agreements in place to clearly define business relationships.

3.4.1 Observations

3.4.1.1 Cost sharing

The Consortium's Operating Agreement outlines the cost-sharing mechanism:

- Non-transportation costs are allocated to each Member Board based on un-weighted ridership; and
- Transportation costs are allocated to each Member Board based on weighted ridership, and the cost is determined on a route-by-route basis. Transit passes are charged to the individual Member Board.

The student count is based on student data as of December 31 of the operating year; this data is retrieved from the Consortium's database.

3.4.1.2 Transportation service agreements

The Consortium does not have transportation service agreements with its Member Boards. The Consortium has stated that it is in the process of developing these agreements, however, no copies were submitted for review by the E&E Review team. While the Consortium's Operating Agreement and Bylaws discuss the Consortium's objective and has an internal policy for service levels, there is no consolidated agreement with its Member Boards as to the levels and terms of service that will be provided.

The Consortium does not have a transportation service agreement with the OCDSB with respect to transporting students enrolled in Provincial Schools; no documentation was provided for review during the E&E Review, but the Consortium has stated that it is in the process of developing this agreement.

3.4.1.3 Purchase of service agreements / support services

The Consortium purchases information technology services, procurement services, and banking services from the OCSB. There is a draft contract outlining the arrangement for IT and procurement services. While this contract has not been executed, it was to commence on Sept. 1, 2010 and is valid for one year with automatic annual renewals. There is no contract that formally outlines the purchase of banking services and the OCSB is providing the banking services at no cost, except for incremental costs associated with temporary accounting help at year-end (i.e., temporary clerks to help with processing and incremental audit fees). The Consortium intends to take responsibility for its own banking eventually.

The Consortium purchases human resource services from the OCDSB; there is a draft contract outlining the arrangement for these services. The contract commences on Sept. 1, 2010 and is valid for one year with automatic annual renewals.

The Consortium leases office space (at a separate location) from the OCDSB; this is documented in a formal, executed lease that commenced on October 24, 2007 and is valid until August 31, 2012.

The Consortium also has a purchase of service agreement with one of its operators, for the organization and management of home to school transportation for special needs students enrolled in the Ottawa Catholic School Board. The contract was executed on September 3, 2010 and is valid from September 7, 2010 to June 30, 2011. This arrangement has been in place since November 1998, but is expected to end in the 2011 / 2012 school year when OSTA assumes responsibility for the administration of all Member Boards' small vehicle services.

3.4.1.4 Procurement policies

There are three different documents that address procurement: the Consortium's Operating Agreement, the Consortium's procurement policy, and the Consortium's policy on signing authority.

The Consortium's Operating Agreement states that:

- Contracts require the signature of two directors – the Board of Directors can assign this right by resolution, and has assigned this right to the General Manager where the contract's value is under \$50,000.

The Consortium's procurement policy states that the following approvals are required:

- For purchases up to \$10,000: the Transportation Coordinators';
- For purchases up to \$25,000: the Provincial and Demonstration Schools Coordinator's;
- For purchases up to \$25,000: the Operations and Systems Coordinator's;
- For purchases up to \$50,000: the Assistant General Manager's;
- For purchases up to \$250,000: the General Manager's; and
- Purchases in excess of \$250,000 require the Board of Directors' approval.

The Consortium's policy on signing authority states that any documents that bind the Consortium (regardless of monetary value) need to be signed by:

- One of the President or Vice-President of the Consortium; and
- One of the Treasurer, Secretary, or General Manager of the Consortium.

All three documents are inconsistent with each other, and a sample review of the Consortium's contracts found that some contracts (e.g., labour settlement) did not abide by any of the three policies. Additionally, none of the three documents provide thresholds for the pursuit of competitive procurement (and, resultantly, sole source exceptions).

3.4.1.5 Banking

The OCSB provides the Consortium with banking services; a more detailed discussion can be found in the financial management section below.

3.4.1.6 Insurance

The Consortium has purchased insurance through the Ontario School Boards' Insurance Exchange (OSBIE). The insurance is valid from January 1, 2010 to January 1, 2011 and includes coverage for general liabilities. The Board of Directors' meeting minutes demonstrate that the Consortium reviews insurance needs regularly; however, this review process/procedure is not formally documented.

3.4.1.7 Staff performance evaluation, training and management

Staff performance evaluations are currently conducted on an as-needed basis and there is no documented staff performance evaluation policy that outlines the process, structure and reporting requirements associated with measuring staff performance. However, the Board of Directors regularly evaluates the General Manager using a Member Board template that incorporates specific benchmarks for the General Manager and links the General Manager's objectives with the Consortium's goals.

Internal staff training and job-related training is provided to staff on a regular basis, generally through "webinars"; all formal training on IT functionality (e.g., EduLog, web design, HTML, etc) is tracked by the Operations & Systems Coordinator. Informal training for staff is done when staff have to fill in for coworkers that are absent, but there is no formal, documented training program for staff development and there is no training calendar to ensure that staff training is planned and delivered appropriately.

The Consortium's goals and objectives are communicated to staff through both informal and formal staff meetings; the formal staff meetings are scheduled in advance and meeting minutes or action notes are taken and communicated to the staff.

As discussed in Section 3.3.1.3, the Consortium's Assistant General Manager is on long-term leave and the position's responsibilities have been temporarily and informally assigned to the General Manager, the Transportation Coordinators, and the Transportation Administrative Assistant.

3.4.1.8 Succession planning

The Consortium has not developed a formal succession plan and does not have a formal plan on cross-training Consortium staff, although discussions with the Consortium indicated that succession planning and the development of a succession plan are key priorities for the Consortium. As mentioned above, informal cross-training does occur and staff have been able to fill in for personnel away on temporary or long-term leave.

3.4.1.9 Long term and short term planning

The Consortium has developed a work plan that is primarily focused on short-term goals; the short-term goals are focused on four areas: consortium management, policies and practices, routing and technology, and contracts. For each of the four areas, the work plan delineates the primary objective, the expected results and key activities that will help achieve the expected results. Responsibilities and timelines have also been determined for the key activities.

Examples of some of the short-term goals include:

- Develop organizational charts that clearly and accurately reflect the organizational structure and provide for clear roles and responsibilities to manage the day to day operation of the Consortium;
- Develop full range of policies and operating practices to serve the needs of students of Member Boards, while continuing to develop and finalize the Operations Procedures Manual;
- Acquisition, installation and use of one centralized planning routing system for managing day to day student transportation planning and routing; and
- Development and establishment of an OSTA Procurement Policy and Guidelines.

The Consortium is in the early stages of drafting a formal business plan that identifies its long-term goals, but, at the time of the review, had not clearly identified these long-term goals.

There is no formal planning process that outlines the process, structure, individuals, and principles associated with the development of the business plan.

3.4.1.10 Key performance indicators (KPIs)

The Consortium tracks the following KPIs:

- Number of buses in use; and
- Student ride time.

The General Manager provides the Board of Directors with informal updates on these KPIs regularly.

At each Board of Directors' meeting, the General Manager presents a strategic review that provides the Board of Directors with an update on human resource matters, route efficiency opportunities, the status of the annual route planning, and other issues as they arise (e.g., impact of start time changes).

However, the Consortium does not currently have a documented, governance approved policy on the use of, and reporting of, KPIs that assess the Consortium's operational performance on a regular basis. Discussions with the Board of Directors indicated that the Board of Directors is currently developing a balanced scorecard, on which the Consortium's performance will be measured and reported on.

3.4.1.11 Information management

The Consortium has documented procedures and confidentiality agreements in place governing the use of student data and ensuring compliance with applicable legislation (i.e., MIFIPPA and PIPEDA) for all staff and all operators. The Consortium has developed a draft policy on compliance with the provisions of the MFIPPA, but does not have a policy on how data is to be collected, used, and disclosed.

The Member Boards do not have signed permission forms from parents to release student data to the Consortium. The Consortium is reviewing the Member Boards' enrolment applications and will be recommending language to be incorporated in the enrolment applications to cover the release of information to the Consortium.

3.4.1.12 Declining enrolment

Management is cognizant of the impact that declining enrolment will have on operations, and attempts to consider this when coordinating transportation services. However, there is no formal, governance approved strategy that addresses the impact that declining enrolment will have on the Consortium's finances and operations and no financial forecasting is done for future years.

3.4.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Cost sharing agreements

The Operating Agreement outlines the cost sharing mechanism for the Consortium. A documented methodology for cost sharing is a best practice to ensure accountability over costs and appropriate operational cash flow for the financial obligations of the Consortium.

Insurance

The Consortium has obtained insurance coverage and coverage needs are periodically reviewed. Insurance coverage is essential to ensure the Consortium and Member Boards are each suitably protected from potential liabilities.

3.4.3 Recommendations

3.4.3.1 Execute a formalized transportation service agreement

The Operating Agreement is an agreement between Member Boards that establishes the Consortium; it is an over-arching agreement that specifies the terms and structure of the Boards' joint venture. Distinct from the Operating Agreement is the transportation service agreement, which articulates the service relationship between the Member Boards and the Consortium as a separate legal entity. In order to make the above distinction clearer, it is recommended that the Consortium develop and execute a joint transportation service agreement with the Member Boards. The transportation service agreement should include clauses that specify the scope of services to be provided, fees, insurance/liabilities, quality of

service, dispute resolution and other terms that the Member Boards deem to be appropriate. The Consortium should also develop and execute a separate transportation service agreement with the OCDSB, with respect to transporting students enrolled in Provincial Schools.

3.4.3.2 Purchase of service agreements / support services

There are three recommendations with respect to purchase of service agreements. First, we encourage the Consortium to execute the contracts that are currently in draft. The Consortium should also make every effort to ensure that contracts with service providers are signed prior to the start of the service period.

Second, there is no contract between the Consortium and the OCSB for the banking services that OCSB provides to the Consortium. It is recommended that for any service the Consortium procures, an agreement or contract be signed by both parties to document their mutual obligations, even if the arrangement is temporary in nature. In this case, a signed contract or agreement protects the Consortium's rights to ensure that it receives the contracted level of services it would otherwise receive from a third party service provider.

Third, some of the Consortium's existing arrangements with its Member Boards do not outline a fee structure that will be paid by the Consortium to the relevant Member Board for services provided. Given that the provision of these services are a real cost to the Member Boards, and given the lack of clarity with respect to the accounting of these administrative costs in the transportation budget, it is recommended that these agreements be modified to include a mechanism by which the Member Boards are compensated by the Consortium for costs incurred in providing these services. This will add clarity to the Consortium's accounting for transportation costs.

3.4.3.3 Harmonize and comply with procurement and signing authority policies

The Consortium's procurement policy delineates who can sign off on certain purchases; this guideline is inconsistent with the Consortium's policy on signing authority. It is recommended that the Consortium review its procurement policy, its Operating Agreement and its policy on signing authority and harmonize these policies; consideration should be given to requiring signatures from Officers (i.e., members of the Governance Committee) only if the procurement is binding upon the Consortium and is above a predetermined threshold.

After harmonizing its procurement policy and its policy on signing authority, it is recommended that the Consortium make all efforts necessary to ensure that it is in compliance with its own procurement policy(ies). Existing contracts should also be reviewed to ensure they have been appropriately executed to ensure their enforceability.

The Consortium should also review its policies for appropriateness in transportation procurement decisions, internal controls and work processes. Particular attention should be paid to the purchasing thresholds associated with initiating a competitive procurement process.

3.4.3.4 Implement a documented, formal staff performance evaluation, monitoring and training process

It is recommended that the Consortium develop, document and implement a process for staff evaluation so as to ensure an alignment between staff performance and the Consortium's goals and objectives. Effective staff evaluation processes establish clear performance evaluation criteria for each position, are conducted regularly, and are fully documented. When implemented effectively, performance evaluations can be a powerful tool to guide and encourage employees to keep the goals and objectives of the overall Consortium in mind during day to day operations.

Building on the above, the Consortium should also develop, document and implement clear staff training / learning initiatives and formal plans to promote continuous learning amongst all employees. Effective staff training initiatives will help to develop skills and will ensure that staff are able to fully utilize available technological aids. Training provided, including cross-training, should continue to be documented and tracked over time, as the Consortium currently does.

3.4.3.5 Adequate resources

The Consortium's Assistant General Manager is on indefinite leave; the Consortium should consider filling the Assistant General Manager's position temporarily. This position could be filled either by existing staff

(and then hiring someone to fill the vacated position temporarily), or through a contract hire. A second, cross-trained staff member will also help to ensure continuity of service and operations in the event that the General Manager or Assistant General Manager leaves or falls sick. Adequate staffing is essential to providing safe, efficient and effective transportation. Additionally, filling the Assistant General Manager's position will allow the General Manager to focus his efforts on the strategic management of the Consortium and on only those transportation matters that cannot be addressed by other staff.

3.4.3.6 Develop succession planning document

It is acknowledged that Consortium staff has experience and is able to keep the Consortium running should a key staff member depart or be absent from the Consortium. However, it is recommended that the Consortium develop a formal succession plan to ensure the continued smooth operation of the Consortium should the General Manager or any staff member leave or be absent from the Consortium.

3.4.3.7 Medium term and long term planning

The Consortium has done a commendable job in developing its short term goals; the work plan for the short-term goals highlights the specific tasks required to be implemented, with associated timelines, and the delegation of responsibility for these tasks. It is recommended that the Consortium use a similar approach to develop a process through which it can define its medium and long term goals and priorities. The goals and the process used to develop these goals should be specific, clear, documented, and governance approved. Developing such a document will help to inspire a culture of continuous and proactive self-improvement within the Consortium.

3.4.3.8 Implement a regular, documented KPI monitoring process

We recommend that the Consortium continue developing its balanced scorecard which should include a variety of KPIs that can be used to track the Consortium's operational performance over time. The list of KPIs to be monitored should be kept to a manageable number and should be regularly tracked to facilitate long-term trend analysis. Further details are presented in the Routing and Technology section.

The process to be used to gather and analyze these KPIs should also be documented in a governance-approved KPI monitoring plan. This KPI monitoring plan should define the frequency with which the KPIs will be analyzed and the quantitative thresholds for changes in KPIs above which further action will be taken and reported to the Consortium's governance structures.

3.4.3.9 Develop policies related to the treatment of confidential information

While the Consortium has documented procedures and confidentiality agreements in place governing the use of student data and ensuring compliance with applicable legislation, it should develop an appropriate, documented policy to govern the use of confidential information which addresses all issues related to the collection, storage, use, access, distribution and destruction of information. The policy should also require the Consortium's governance structures and Member Boards to review and reflect on freedom of information and privacy legislation requirements on a regular basis. The Consortium should also work with its Member Boards to ensure that appropriate consent is obtained for the use of student information in transportation planning and service delivery.

3.4.3.10 Develop a strategy for declining enrolment

School enrolment across Ontario has been in steady decline over the last decade. Given that the Consortium currently serves some rural areas, and given the Ministry's recent notice that transportation funding is to be reduced in line with declining enrolment, it is recommended that the Consortium incorporate a strategy for the management of transportation costs into its long term planning process. In particular, this strategy should focus on the financial impact declining enrolment is expected to have on the Consortium and should present appropriate mitigation strategies. Developing such a plan or strategy will provide the Consortium with a framework that will help it address funding issues and will also signal a proactive approach to dealing with issues before they arise – a key element of effective long-term Consortium management.

3.5 Financial Management

Sound financial management ensures the optimal use of public funds and also ensures the integrity and accuracy of financial information. This includes appropriate internal controls and a robust budgeting process that has a clearly defined planning and review calendar that promotes accountability and sound decision making.

Financial management policies capture roles and responsibilities, authorization levels, and reporting requirements to ensure that a proper internal financial control system is in place for the Consortium. These policies should also clearly define the financial processes of the Consortium in a way that ensures appropriate oversight without impinging on efficiency.

3.5.1 Observations

3.5.1.1 Budget planning and monitoring

The Consortium's budget policy outlines the Consortium's budget process and states that the Consortium will annually establish a budget, in accordance with Canadian Public Sector GAAP.

The General Manager will develop a preliminary budget and present it to the Member Boards' Superintendents of Business (who are on the Board of Directors) by March 31. The preliminary budget will be reviewed for completeness and reasonableness, and a revised budget will be presented to the Board of Directors by April 30. This budget presentation will also include a summary of major initiatives.

When preparing the budget, the General Manager starts from the previous year's actual costs and then incorporates adjustments for factors known to be changing for the upcoming year. The Consortium conducts informal variance analyses via budget-to-actual reconciliations on a quarterly basis and detailed variance analyses via budget-to-actual reconciliations on an annual budget, but this is not a formal policy.

3.5.1.2 Accounting practices and management

The Consortium has documented, governance approved policies with respect to budgeting, financial reporting, signing authorities, the expenditure of operating funds (i.e., procurement), and petty cash.

The Consortium has an undocumented arrangement with the OCSB for banking services. This includes having the OCSB administer all payables and receivables, maintain all necessary records, invoice parties as requested, and the preparation of the financial statements.

With respect to invoices, the Consortium's process is summarized below:

- Invoices are received by the Consortium;
- The General Manager reviews and approves the invoices;
- A cheque requisition is submitted to the OCSB, which is the only party able to disburse funds; and
- Reconciliations are conducted on a regular basis by the General Manager, who tracks the Consortium's expenditures.

3.5.1.3 Audit

The Consortium's financial statements are audited by an independent auditor. The audit was ongoing at the time of the E&E Review.

3.5.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Accountability

The Consortium conducts routine reviews and approves reconciliations to ensure proper control and prevent accounting errors. Budget-to-actual variations are also documented on a regular basis.

Budgeting processes

The Consortium, in conjunction with its Member Boards, has established a process that allows budgets to be prepared on a timely basis. The budget monitoring process ensures that the General Manager is accountable for expenditures through regular reporting to the Board of Directors. We suggest that the

Consortium update its budget policy to explicitly mandate the regular, documented review of budget-to-actual variances and the regular presentation of this analysis to the Consortium's governance, as this is currently being done on a regular basis.

3.5.3 Recommendations

3.5.3.1 Documentation

It is recommended that all of the accounting and internal control policies and procedures currently being used by the Consortium be formalized and documented as currently only some of these policies and procedures have been formally documented. The documentation of its accounting and internal control policies and procedures is critical as this will help ensure that appropriate checks and balances and segregation of duties are in place.

3.5.3.2 Segregation of duties

The General Manager is responsible for reviewing and approving invoices, and then conducts the reconciliation and tracks the Consortium's expenditures. This lack of segregation of duties represents a potential control weakness. It is recommended that no one individual be responsible for the whole accounts payable cycle.

3.6 Results of E&E Review

This Consortium has been assessed as **Moderate-Low** in Consortium Management. The Consortium has established a governance structure that ensures accountability, transparency and responsiveness of the governance body to stakeholder needs. It is also a separate legal entity with an operating agreement that clearly defines the relationship between the Member Boards in the delivery of safe, effective and efficient student transportation services.

While the Consortium has taken a number of significant positive steps in the recent past, improvements are still required. A strong governance and management structure is the necessary foundation of any successful organization. To that end, the Consortium should ensure that its structures provide for a separation of oversight and operational responsibilities and the appropriate delegation of authority to the Consortium to empower it with the authority to execute on its responsibilities.

The Consortium has numerous, sometimes conflicting, documents that outline purchasing policies. We encourage the Consortium to review and harmonize these various documents into one comprehensive procurement policy and then ensure that all procurements undertaken are in-line with this policy. It is recommended that for any service the Consortium sells or procures an agreement or contract be signed by both parties to document their mutual obligations, even if the arrangement is temporary in nature. For services it sells, the Consortium, as a separate legal entity, should have a contract in place with each of its Member Boards detailing the transportation services it will provide. For services it purchases, the Consortium has draft contracts for most services, but these still need to be executed. Contracts should clearly detail the services and the fee to be provided / received.

The Consortium has done a commendable job in developing its short term goals. With a good foundation in place, it is recommended that the Consortium use a similar approach to develop a process through which it can define its strategic objectives and, thereby, medium and long term goals and priorities. The development of a longer term strategy should include an analysis of the financial impact declining enrolment is expected to have on the Consortium and should present appropriate mitigation strategies.

With regard to human resources, the Consortium should develop HR policies that include a process for staff evaluation as well as a succession plan. With the Consortium's Assistant General Manager on indefinite leave; the Consortium should consider filling the Assistant General Manager's position. An organization the size of OSTA, undergoing the type of transformation and development that OSTA currently faces, cannot be effectively and efficiently managed indefinitely without a complete and strong management team.

On the financial side, it is recommended that all of the accounting and internal control policies and procedures be formalized and documented. As part of this documentation process, we encourage the Consortium to review its segregation of duties controls to help ensure appropriate management of Consortium finances.

Finally, we encourage the Consortium to implement a regular, documented KPI monitoring process. The process to be used to gather and analyze these KPIs should also be documented in a governance-approved KPI monitoring plan and should allow for long term trending analysis that will document the progress the Consortium is sure to make into the future.

4 Policies and Practices

4.1 Introduction

Policies and practices examine and evaluate the established policies, operational procedures, and the documented daily practices that determine the standards of student transportation services. The analysis for this area focused on the following three key areas:

- General Transportation Policies & Practices;
- Special Needs and Specialized Programs; and
- Safety and Training Programs.

The observations, findings, and recommendations found in this section of the report are based on onsite interviews with Consortium staff, and on an analysis of presented documents, extracted data, and information available on the Consortium’s website. Best practices, as established by the E&E process, provided the source of comparison for each of these key areas. The results of the assessment are shown below:

Policies and Practices – E&E Rating: Moderate-Low

4.2 Transportation Policies & Practices

The goal of any transportation operation is to provide safe, effective and efficient services. For transportation consortia, it is equally important that service to each of the Member Boards is provided in a fair and equitable manner. To support this goal, it is essential that well defined policies, procedures, and daily practices are documented and supported. Well defined policies ensure that the levels of services to be provided are clearly established while documented procedures and consistent practices determine how services will actually be delivered within the constraints of each policy. To the degree that policies are harmonized along with the consistent application of all policies, procedures, and practices ensures that service will be delivered safely and equitably to each of the Partner Boards. This section examines and evaluates the policies, operational procedures, daily practices, and their impact on the delivery of effective and efficient transportation services.

4.2.1 Observations

4.2.1.1 General policy guidelines

OSTA has an array of policy documentation related to the organization, administration, and operation of the Consortium. The key document describing the manner in which transportation services will be provided is the OSTA policy statement titled Transportation Services. This establishes that “the Ottawa Student Transportation Authority shall provide home to school transportation service to students eligible for transportation in accordance with member school board transportation entitlement policy.” This statement explicitly references the supremacy of the transportation policies of the OCDSB and the OCSB. Both the OCSB and the OCDSB transportation policies are available via web link from the OSTA website. In addition, the OSTA has established a set of approved policy documents that supplement, and in some cases, mirror the Member Board transportation policies.

The Consortium does not operate with a single set of harmonized transportation policies. Even if a single policy does not exist, the E&E review team expects the Consortium to explicitly document and identify the differences in policy or procedure between the Member Boards. Either the Operating Agreement or Consortium policy statements should recognize the policy differences and provide a mechanism to account for the cost differences associated with the differing criteria. The OSTA may be in technical compliance with these criteria, but a number of issues and concerns arise from a review of the documentation:

- There are substantial differences in the extent and level of detail provided in the three sets of documentation, resulting in a general lack of clarity that runs counter to the expectation for an explicit identification of the differences in policy.

- There are a number of instances where various policy statements appear to overlap or become duplicative, adding unnecessary confusion and uncertainty regarding their applicability and failing to provide clear recognition of the differing policies between the Member Boards.
- There are significant inconsistencies in the actual policy criteria between the Member Boards that are not adequately reconciled through the simple weighted student cost allocation methodology currently in use. These inconsistencies raise questions regarding the ability of Consortium staff to operationally comply with all of the differences.

Much of the OSTA policy documentation presented for review was in draft form or only recently approved by the OSTA Board of Directors. Examples of key documents that were approved as recently as one day prior to the date of the E&E Review include: a policy that cross-references eligibility distances by Member Board; access to empty seats (courtesy transportation); student discipline on buses; and weighted vehicle loading factors. The combination of recent adoption, inconsistencies between OSTA and Member Board documentation, and complexities in ensuring operational compliance for policies that differ significantly in their criteria raises major concern regarding the practicality and usefulness of the general policy documentation provided to and by the Consortium.

4.2.1.2 Eligibility and allowable walking distances

A summary of the key distance-based eligibility policies documented for the OSTA and each of the Member Boards is provided in the table below.

Table 4: Key policy comparison

Policy	OSTA	OCSB	OCDSB
Eligibility by attendance boundary	No policy – defers to Member Board policies, except “distance shall be determined by OSTA software”	JK/SK: 0.8 km 1-8: 1.6 km 9-12: 3.2 km	JK/SK: 0.8 km 1-6: 1.6 km 7-8: 3.0 km 9-12: 3.0 km outside UTA ⁷
Walk to stop distance	JK/SK: 0.5 km 1-12: 0.8 km	JK/SK: 0.5 km 1-12: 0.8 km	0.8 km for all

This provides an example of the complexity that arises when eligibility criteria are different among the Member Boards. The management of differing policy criteria is possible through the use of the transportation routing software, but inefficiency and confusion is likely when differences exist across panels and distances, to the degree they do in this system. Consortium staff is required to learn both the policies and exceptions that have been established by the individual Boards, and to plan runs and routes to accommodate many different variables. This can lead to a lack of clarity regarding eligibility expectations for users of the system, and difficulty in managing the various standards as staff attempts to integrate bus runs and routes among Member Boards.

4.2.1.3 Service addresses

The OSTA policy “Transportation Services” states, “Transportation service by contracted school vehicle shall be provided to and from a pick-up and/or drop-off point that is consistent, five days a week.” The OCDSB policy states, “An alternate bus pick-up or drop-off point may be arranged to accommodate a caregiver for an elementary student on a fixed day or days of the week, provided such alternate arrangements are consistent from week to week, are on the same bus, do not change the bus route, and are confirmed in writing by the parent.” The OCSB policy states, “Requests for variable transportation service cannot be accommodated for safety reasons. Student pick-up and drop-off locations must be the same five days a week and must be consistent from week to week.”

⁷ “Urban Transit Area” as defined by the OCDSB; this is the urban area of the Ottawa municipality in which grade 9-12 students are ineligible for school bus transportation.

These statements appear to be consistent in their intent, but the different wording can lead to inconsistency in application. This is particularly true when interpreting the meaning of the OCDSB policy. It was reported that it has been the operational practice of the OCDSB to allow for the use of alternate service addresses under the empty seat (courtesy) policy, provided there is space available, not under the general policy statement quoted above, but a strict reading could lead to the conclusion that a conflict does exist between the OSTA and the OCDSB policy in this area.

4.2.1.4 Courtesy transportation

The OSTA “Access to Empty Seats on School Buses” policy (which was approved by the Board of Directors one day before the review) states, “School Principals of member school boards shall be authorized to assign students to available empty seats on school bus vehicles under procedures and timelines established by the Ottawa Student Transportation Authority.” And that “Transportation services provided under this policy may be withdrawn at any time during the school year to accommodate eligible students...”

Analysis of the student data provided during the E&E Review indicates that 4,001 students who are not normally eligible for transportation are coded as “approved as seat availability”. In addition, there are 330 coded as “Exception – board approved” and 397 as “Grandfathered – Board approved”, neither of which is adequately explained by the empty seats policy. It was reported that Grandfathered students are students who have been granted permission by Member Boards to continue at a particular school due to a boundary change, or for certain day care situations. These situations clearly fit under the criteria of “not normally eligible”. In total these 4,728 students represent approximately ten percent of all transported students. This is a significant proportion, and bears close scrutiny to determine the impact this has on overall system-wide efficiency.

4.2.1.5 Hazardous transportation criteria

The OSTA Transportation Services policy provides for transportation to be provided “where walking conditions for students are considered by OSTA officials to be hazardous and detrimental to the safety of students”. It goes on to state that OSTA “...shall establish Temporary Transportation Zones to permit the provision of transportation service and reduce the distance students are required to walk to school under member school board policy. Periodic review of these Temporary Transportation Zone safety exceptions shall be undertaken and adjustments made to reflect changing local conditions, at the discretion of the Ottawa Student Transportation Authority”. There is no corresponding OCSB policy. The OCDSB policy defers to OSTA’s identification of hazard areas, but the policy makes a distinction between eligibility for “hazardous” conditions for grades one to three and “extremely hazardous” for grades four to twelve.

In practice, the treatment of hazards is inconsistent across the system. A holdover from when the Member Boards operated separate transportation systems is that the OCDSB utilizes hazard boundaries as established in Edulog but the OCSB uses a combination of hazard boundaries and designating hazards by adjusting the characteristics of specific street segments in the electronic map (e.g., “no cross”, or “no travel”). This has carried over into the combined system. Edulog utilizes hazard boundaries to accurately calculate eligibility and assign the appropriate system eligibility code to students. Hazards identified in the manner of the OCSB will cause calculated student distance to school to be effected, which may alter their eligibility but not assign the appropriate coding.

An analysis of student data indicates that 3,683 students have been automatically assigned the system eligibility code “Eligible due to Hazard”, but it is unclear how many more would be identified in this way if proper hazard boundaries were in place system-wide. Therefore, it is difficult or impossible to accurately identify the number of students being transported due to hazardous conditions. However, even those properly coded in the system represent approximately eight percent of all transported students. This is a significant proportion of all transported students, and worthy of further analysis to determine the appropriateness of hazard identification system-wide.

4.2.1.6 Exception eligibility criteria

OSTA policy defers to Member Boards and is silent on the subject of out-of-boundary and other exception-based eligibility criteria. OCDSB defines eligibility based on “designated school” with definitional criteria established in their policy statement. It also provides for service to programs within a designated “group of schools” and for rural students residing more than 20 kilometres from certain grade 9-12 programs within the Urban Transit Area. Approved student transfers to schools outside “designated group of schools” is not necessarily provided. OCSB policy states “Transportation is not provided for

students attending schools outside of their regular attendance boundary”, except that English as a Second Language (ESL) students *may* “apply” for service and FSL service *will be provided*.

An analysis of the student data indicates that 4,032 students assigned the “out of boundary” system eligibility code are currently assigned to at least one morning or afternoon bus run. Of these, 1,318 (33%) are special needs students, 1,215 (30%) are “empty seat,” “exception” or “grandfathered” students, and 1,139 (28%) are simply coded as “eligible” in the user eligibility code. This may indicate that their transportation address (a separate service address allowed under the alternate address policy) is within boundary and eligible for transportation, but this conclusion is unclear from the data. These 1,139 students represent more than two percent of all transported students.

4.2.1.7 Student ride times

The OSTA policy on student ride times explicitly cross-references each of the Member Board policies in this area. Various policy criteria exist depending on Member Board and panel, as follows:

- JK-8 both Boards: 60 min
- 7-8, OCSB routes: 90 min
- 9-12 OCDSB: 60 min
- 9-12- OCSB: 90 min

This provides another example of the complexity that arises in trying to comply with a host of conflicting policy criteria. The ability to plan effective and efficient bus routes that share across Board and panel and that also comply with these criteria is complicated by ride time standards that are not harmonized. An analysis of the data, meanwhile, indicates that the policy criteria are in no way constraining service quality as 99 percent of all students appear to have ride times of 60 minutes or less. Ninety-seven percent of ride times are under 50 minutes, and 88 percent are under 30 minutes. This is discussed further in the Analysis of System Effectiveness under the Routing and Technology section of the report.

4.2.1.8 Designation of responsibilities

OSTA “Stakeholders Responsibilities” policy and associated procedures provides a comprehensive recitation of each stakeholder’s role in the transportation system. This policy includes a section for “Caregivers, Parents and/or Guardians”. The policy also includes similarly detailed sections addressing the responsibilities of: OSTA; Member Boards; IT Departments; Operators and drivers; Students; City of Ottawa; and General Public. The OCDSB “Transportation Procedures” also contains an extensive section on “responsibilities”, including one section targeted to “Parents/Guardians”. The OSTA “Stop Locations” policy also addresses parent responsibilities in regard to bus stop supervision. Other than the duplicative nature of the OCDSB procedure relative to the OSTA policy, this documentation provides excellent guidance.

4.2.1.9 Decision appeal processes

There is no specific OSTA, OCDSB, or OCSB policy or procedure document governing the decision appeals process. The OSTA “Communications Protocol” serves as a surrogate and the only current documentary guidance regarding dispute resolution for operational decisions. This provides a flow chart illustrating that appeals of decisions flow through OSTA staff, the Assistant General Manager of OSTA and onto the General Manager. The chart shows a two-way flow between the General Manager, the Board of Directors, and representatives from each of the two Member Boards.

The protocol also contains a note that states, “Decisions or appeals of a policy nature (i.e. walking distances) may be referred to the respective Board Superintendent i.e. Superintendent of Facilities (OCDSB) & Superintendent of Finance & Administration (OCSB). Decisions or appeals of an operational nature (i.e. bus stop locations, ride times, seat availability etc) may be forwarded through staff up to and including the General Manager for final decision.” A second note states, “If issues are unresolved at the Trustee level, the Trustee may speak with the appropriate Trustee Representative on the Board of Directors of OSTA and/or the designated Superintendent.” Overall, this document provides insufficient guidance to ensure that all questions, concerns, and disputes that arise as a normal part of effective and efficient Consortium operations have a clear path to resolution and a final arbiter clearly identified.

4.2.1.10 Route planning schedules and strategies

The OSTA document titled “Transportation Efficiency Planning Schedule” provides a bulleted list of milestone activities to be completed in each month of the year. Notable elements in this list include:

- December – Transportation Efficiency Report to OSTA Board of Directors;
- December – Post Transportation Efficiency Opportunities on OSTA Web Site; and
- March – recommendations get presented to the Board of Directors and Member Boards.

These guidelines provide only an outline for the annual planning process, and are notable in their lack of detail. The schedule has not been actively utilized for managing large scale efficiency initiatives; although a current ongoing efficiency planning effort in the East Transportation Zone could fit into this schedule for the current (2011 – 2012) planning cycle. It was reported that there is also a monthly planning schedule in use for regular operations, but this was not presented for review.

While an annual planning cycle has been established, to date there have been only two primary efficiency projects. A comprehensive bell time analysis and adjustment to routes in the Barhaven area was implemented over a two year schedule. A current ongoing analysis in the East Transportation Zone is targeted for presentation to the Board of Directors this year in accordance with the efficiency planning schedule. Other efforts at increasing efficiency have been implemented on a tactical basis as opportunities arise and become apparent during the annual route planning cycle.

There is no documentation within OSTA policies or procedures that touches on routing strategies or techniques. There is one Transportation Coordinator for each of four geographic zones within the OSTA service area. These positions serve as the primary route planners in the organization. Each has two Transportation Assistants reporting to them whose primary responsibility is day-to-day customer service and maintenance of the existing route structure. Each Transportation Coordinator is responsible for evaluating the effectiveness and efficiency of the routes within their area, but does so in cooperation with the other coordinators. During interviews, the Coordinators demonstrated knowledge of routing strategies and many of the Assistants similarly displayed knowledge of system use and basic routing techniques.

There appeared to be some inconsistency among the processes followed and approaches to the work demands within each team of Coordinators and Assistants. Relative levels of experience varied, and the absence of a thorough, coordinated approach to training is yielding inconsistent results. This will present ongoing difficulties as the Consortium continues to mature and more effort is placed on identifying efficiencies that will require a more tightly integrated and shared system of bus routes and schedules.

Basic routing techniques such as run tiering and combination runs are in use throughout the service area. There is also a very limited use of transfers as a routing strategy. The OSTA Transportation Services policy permits the use of this technique. The policy limits the number of transfers for any student to just one (two buses), and prohibits transfers at rural transfer points unless both buses are present. The Transportation Services policy also establishes vehicle loading criteria as an OSTA responsibility. The OSTA policy “Weighted Vehicle Loading Capacity for School Buses” is used for determining the maximum allowable load per vehicle and states and provides a table of vehicle sizes for this purpose. It is notable that these criteria differ from the weighted loading used for cost allocation purposes under the Consortium operating agreement. Vehicles are assigned to specific runs based on several factors including carrier performance, location, availability of equipment, and the proportion of runs currently operated by the carrier. There is no OSTA policy statement on the subject of run and route integration. There is also no OCSB policy statement on this subject. The OCDSB policy states, “The Board agrees in principle with the transportation of elementary and secondary students on the same bus or buses, if necessary”. An additional section on “cooperation with other school boards” is silent on run or route sharing. The impact on system effectiveness of these operational practices is discussed further in the Analysis of System Effectiveness under the Routing and Technology section of the report.

4.2.1.11 Bell time management

The “Transportation Efficiency Planning Schedule” touches on the subject of school bell times, but there is no bell time policy or procedure at OSTA or the OCSB. The OCDSB transportation policy states, “The scheduled commencement and dismissal times for all elementary and secondary schools operated by the Board shall be reviewed and coordinated in consultation with the Ottawa Student Transportation Authority, with a view to enhancing transportation routing efficiencies and reducing total transportation services and expenditures required by the Board.” The absence of a coordinated approach to bell time

management is discussed further in the Analysis of System Effectiveness under the Routing and Technology section of the report.

4.2.1.12 Bus stop placement

The OSTA “Stop Locations” policy addresses safety, efficiency, “walk-outs” from crescents or courts, and qualification for home stops. Associated procedures cover:

- Allowable walk to stop distances (see Table 4);
- Treatment of Special Education students;
- Supervision at stop, including specific parent responsibilities; and
- Student behaviour.

The OCDSB transportation procedure document states that “pick-up/drop-off points will be established by the Ottawa Student Transportation Authority at a safe location.” There are no policy or procedure statements that address the specific criteria or technical aspects of how stop placements are determined (e.g., avoidance of blind curves; minimum distance between stops, etc.).

4.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Stakeholder responsibilities

The OSTA policy on stakeholder responsibilities is comprehensive and detailed. It provides excellent guidance and should serve as a reference for other transportation consortia around the Province.

4.2.3 Recommendations

4.2.3.1 Policy alignment

The analysis and discussion above indicate the complexities and generally sub par compliance associated with the current poorly aligned transportation policies. The Consortium and its Member Boards should actively and progressively pursue a goal of actual policy harmonization that will facilitate rational and consistent operational practices for transportation throughout the service area, and that will promote more effective and efficient delivery of transportation services. Implementation of this recommendation should focus on eliminating the barriers to effectiveness and efficiency that currently exist in those policies that are inconsistent with actual practice and with each other. Key policies that should be addressed include the following:

- *Eligibility and allowable walking distances* – It will become increasingly difficult for OSTA staff to develop a fully integrated and coordinated transportation system when large differences exist in the base eligibility criteria. This will become increasingly apparent to users of the system and when bus stop locations are consolidated and more bus runs become shared with students from both Boards riding the same vehicles.
- *Student ride times* – Average student ride times are significantly below the standards currently documented in policy. This negates the negative impact on route planning of having disparate standards by panel and Board. But this will become of increasing concern as efficiency efforts continue. Working toward a goal of fully harmonizing ride time policies and standardizing these across the system will provide a more defensible and rational planning criteria. This, in turn, will help to facilitate a more structured and system-wide assessment of the opportunities that exist to improve efficiency, and will impose a reasonable constraint on the limits of the changes that can be incorporated before system effectiveness and service quality are adversely affected.

4.2.3.2 Policy and practice enhancement and documentation

In concert with a more aggressive approach to harmonization, the Consortium and its Member Boards should actively consider the addition of policy statements that would promote effectiveness and efficiency. Key policy and practice documentation that should be considered for incorporation include:

- *Bell time management* – The alignment of school bell times is a key factor that promotes transportation efficiency in any system. This is particularly true in a system centered upon a large urban area such as Ottawa. Changes to school bell times are always disruptive and typically controversial. A clearly documented policy that establishes roles, responsibilities, processes, and

levels of authority and responsibility for recommending and implementing bell time changes is a critical policy tool for an effective and efficient transportation consortium.

- *Dispute resolution* – Conflicts and disputes regarding eligibility and standards of service are inevitable in any large and complex transportation system. A clearly documented policy that establishes roles, responsibilities, processes, and specific approval and decision authority to adjudicate complaints and disputes is critical to avoid having system changes or day to day operational delays or disruptions.
- *Route planning parameters and guidelines* – Operational processes, procedures, parameters, and guidelines that clearly translate how policy objectives will be translated into operation are a necessity to ensure consistency in policy compliance across the entire Consortium organization. Best practices across the Province include the development of a comprehensive internal procedure manual covering all aspects of Consortium operations. A logical first step in this direction is to create route planning parameters and guidelines covering subjects such as when to utilize specific routing techniques, the technical aspects of proper bus stop placement, when and how to utilize system coding, and other similar elements.

In addition to, and as part of this effort to expand policy and practice documentation, all existing documentation should be thoroughly reviewed to eliminate duplication and inconsistencies. The goal for this part of the effort should be to promote greater clarity and utility. This is a necessary step as the Consortium continues to mature and implement effectiveness and efficiency changes throughout the system.

4.2.3.3 Enhancements to training practices

The enhancements and changes to policy and practice documentation should be matched by a comprehensive effort to bring certain internal operating practices more in line with the expectations of the E&E Review process. A key building block in accomplishing this alignment is the development of a coordinated and intensive staff training program. There has been significant staff turnover, but many individuals currently part of the OSTA team began as employees of the Member Boards. Many of the operational practices and expectations for these staff carry over from this past experience. While technical expertise certainly exists among senior, and in some cases junior OSTA staff, a coordinated staff development and training program would serve as a conduit to bring all internal practices in line with OSTA expectations and those of the E&E Review process. Consistency and alignment of day to day operating practices is an absolutely critical prerequisite for the successful implementation of other policy and practice changes, and for the continuous improvement cycle to take hold.

4.2.3.4 Evaluation of courtesy transportation policies

Students not normally eligible for transportation represent nearly 10 percent of all transported students. The Consortium, in cooperation with its Member Boards should analyze the impact this is having on overall system effectiveness and efficiency. Removing these students from the base of transported students would have a deleterious effect on the analysis of system effectiveness described in the Routing and Technology section, which raises concerns regarding the underlying efficiency of the system. The large volume of students transported under the “empty seats” policy raises questions as to whether actual practice is to allow a margin for the inclusion of these students in route planning. The enabling policy should be evaluated to determine its ongoing efficacy and purpose.

4.3 Special Needs Transportation

4.3.1 Observations

Planning transportation for special needs students can present additional challenges as one must consider not only time and distance constraints, but also the physical, and emotional needs of each individual student. Additional factors to consider include equipment needs such as wheelchair lifts, special restraints or harnesses and medically fragile students who require assistance or medical intervention. Policies specific to the transportation of special needs students are essential to ensure that transportation meets each individual student’s needs and is provided in the safest manner possible.

4.3.1.1 Special needs policies

Each set of policy documentation (OSTA, OCDSB, OCSB) establishes eligibility for transportation for students with special needs. The wording in each policy is somewhat different, but each essentially establishes that these students will be provided with transportation services appropriate to their disability

or particular need. The OSTA Transportation Services policy addresses special needs only briefly; the focus is on establishing home stop eligibility and the need to deliver students into the care of a responsible adult. OCDSB & OCSB policies only focus on establishing eligibility. Outside of these basic eligibility criteria, the OSTA has a policy titled Life-Threatening Medical Conditions that covers the requirements for identification of students with medical conditions and the administration of medications such as an EpiPen. This policy was approved one day prior to the commencement of the E&E Review and therefore impossible to assess in practice.

Eligibility for transportation to specialized programs as opposed to special needs is similarly codified by each Member Board policy. The OCSB limits eligibility to ESL and FSL students, with certain conditions. The OCDSB eligibility requirements are more complex, and revolve around a student's school and program assignment, whether the assignment is to the student's "designated" school (i.e., home school), or a "group of schools" that are defined as offering a range of program alternatives. Additionally, a student transfer to a program outside of the group of schools may still be eligible for transportation under certain conditions.

4.3.1.2 Special needs planning guidelines and practices

Special needs route planning is dispersed throughout the OSTA organization. Each Transportation Coordinator is responsible for planning special needs routes for students attending OCDSB schools and programs within their geographic area of responsibility. Route planning for OCSB special needs students is handled under contract by a bus operator. Protocols and record keeping vary somewhat for each Coordinator. There is no comprehensive procedural documentation describing how this high need population is to be handled and treated, and there is no current coordination of special needs transportation between the two Member Boards.

On a day to day basis, Consortium staff responds to requirements presented by the special education staff at each of the Member Boards. A special needs transportation form is supplied for OCSB students describing the type of service and equipment requirements for each student. Similar information is transferred via email and telephone for OCDSB students, but in neither case does the OSTA staff have input to the decision process for where students are assigned or for how their transportation needs can best be met. Coordinators provide the students with whatever special requirements are demanded. Generally speaking, these students are placed on small vehicle routes that include other special needs students, if possible. Some integration of special needs and regular education students is pursued.

Monitors or attendants are not in regular use in the consortium's transportation system. Most special needs transportation is conducted using small vehicles (six passenger vans) and do not incorporate monitors. Generally, adult attendants are nurses or medical assistants that are included because of the requirements of a particular student's medical condition. Traditional bus monitors are provided for the OCSB for their developmentally challenged students. The OSTA designs the routes and assigns a monitor that is a Board employee, paid by the Board. There is no policy documentation covering this subject area.

4.3.1.3 Driver Training

There is no policy documentation covering training requirements. Operator contracts include annual driver training requirements for EpiPen use, and one-time training in first aid and CPR (within 60 days of hire). Safety training meetings are required twice annually, with a right for OSTA to dictate the content.

4.3.2 Recommendations

Enhance special needs policy documentation

Clear and complete procedural documentation related to the proper documentation of special equipment and behavioural needs for each student, route planning, and record keeping is a key to ensure success in this highly specialized and high need aspect of transportation operations. The Consortium should strongly consider enhancing special needs related policy and procedural documentation to address these areas as part of the broader review and enhancement recommendation introduced above.

Establish a stand-alone special needs planning function

The requirements and specialization associated with the special needs student population requires constant attention and focused expertise. Best practices in the Province call for the planning function to be a centralized task assigned to a particular team who can develop the required skills and relationships with special education personnel at the Member Boards and bus operators. The current dispersion of

responsibility among the four Coordinators and a bus operator, coupled with the absence of clear procedural documentation, presents a potential safety concern and should be addressed in the near term.

4.4 Safety policy

4.4.1 Observations

Ensuring student safety is the foremost goal of any transportation organization. In support of providing safe transportation, it is imperative that clear and concise policies, procedures, and contractual agreements are developed, documented, monitored, and enforced to ensure that safety standards are understood and followed without exception. The bus operators are contractually required to provide safety related training to its drivers and are also mandated to provide programs to the schools including the First Rider Program, vehicle evacuation drills, and bus patroller.

4.4.1.1 General safety policies and guidelines

Current OSTA policies addressing safety subjects include:

- *School Bus Safety* – establishes safety as a shared responsibility, reiterates the training and bus configuration requirements of the operator contract, states that “The Ottawa Student Transportation Authority shall support and participate in an annual School Bus Safety Awareness program for first-time school bus riders” and that “The Ottawa Student Transportation Authority shall support school Principals in the coordination of ongoing school bus safety education programs and bus evacuation drills in cooperation with the vehicle operators servicing their school. Such programs will include information concerning safe and proper conduct while embarking, riding, and disembarking school vehicles.”
- *Student Discipline* – establishes a progressive discipline procedure to enforce appropriate student behaviour.
- *Student Bus Monitors* – establishes that “The Ottawa Student Transportation Authority shall support the use of student bus monitors on contracted school bus vehicles” and “The responsibility for establishment, assignment, direction and oversight of student bus safety monitors shall be that of school Principals, in cooperation with school bus drivers.”
- *Reporting of Accidents* – establishes specific reporting and follow-up requirements for accidents, based on severity and involvement.

The OCSB policy is silent as to safety programs. The OCDSB transportation procedures have sections on safety; the content is very similar to that of the supporting procedures for the OSTA “School Bus Safety” policy.

The OSTA helps to sponsor, together with operators and other consortia, an annual school bus safety awareness day. Other safety programs, as indicated in policy, are left to the discretion and authority of school building administrators and operators. In interviews, operators indicated that they cooperate with each other and Member Boards in conducting the various annual safety programs.

4.4.1.2 Operator compliance auditing

In addition to their route planning responsibilities, the Transportation Coordinators are responsible for on-road operations. They audit bus operators and bus routes, and communicate directly with school administrators regarding transportation issues. This role is of particular importance during the extended absence of the Assistant General Manager, who would normally be responsible for many of these activities.

4.4.1.3 Use of cameras

While there is no current use of cameras on buses, there is no policy or procedural documentation related to the use of cameras for the OSTA, OCDSB, or OCSB.

4.4.1.4 Inclement weather procedures

The OSTA “Cancellation of Transportation Services” policy provides guidance and associated procedures. There is no related OCSB policy. The OCDSB has a stand-alone inclement weather policy. The OSTA policy states that decisions will be made “in accordance with the Inclement Weather/Emergency Closure Transportation Cancellation Procedures.” This related document is a

comprehensive guide to the procedures followed and coordination required in reaching a service cancellation decision. The OCDSB maintains a separate stand-alone policy and separate procedure statement. The policy establishes OSTA as the Board's agent in the decision process, but both documents contain significant detail that overlaps with the OSTA documentation in this area.

Cancellation and delay information is posted to the OSTA website, including those for individual bus runs and routes on a daily basis. The carriers are required by contract to post delays in excess of 15 minutes on a real time basis via a module of TRACS. This data is posted live to the website, and data for historical tracking of delays is available via the administrator access to TRACS. These data are not currently used for performance measurement or reporting.

4.4.1.5 Accident and incident procedures

The OSTA policy "Reporting of Accidents" establishes a specific protocol for reporting requirements of the operator to OSTA, and OSTA to the Member Boards for each incident type, including:

- Severe accident / accident with injuries; and
- Minor accident.

4.4.1.6 Maximum age of vehicles

Age requirements are established in the operator contracts. The age requirements vary depending on the school board being serviced. Buses must be no older than 10 years for OCSB routes. Buses up to 12 years old are permitted for OCDSB routes, but by 2012-2013 all buses must be a maximum of 10 years old.

4.4.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Annual Safety Awareness Day

The annual school bus safety awareness program co-sponsored by OSTA is a high profile community event that raises the profile of school bus safety, and serves as an effective means of orientation for new riders in particular.

4.4.3 Recommendations

4.4.3.1 Enhance route auditing procedures

Overseeing transportation operations across the OSTA service area is a significant responsibility. Establishing a formal and structured approach to ensuring that the services being paid for are rendered as expected will be an important operational component of future Consortium operations. The auditing program should include administrative and operational components.

4.5 Results of E&E Review

Policies and Practices development and implementation has been rated as **Moderate-Low**. The Consortium has made progress on developing policy and practice documentation; since much of this is only recently adopted, actual operating practices are not in full compliance. Consortium staff, while committed, dedicated and experienced, are operating without a clearly defined operational framework that can only be provided through thoroughly documented and clearly articulated standards of service. This leads to inconsistent application of standard practices, exceptions, and a general lack of coordination and standardization in Consortium operations.

5 Routing and Technology

5.1 Introduction

Routing and Technology encompasses the management, administration, and use of technology for the purpose of student transportation management. The following analysis stems from a review of the four key components of:

- Software and Technology Setup and Use;
- Digital Map and Student Database Management;
- System Reporting; and
- Regular and Special Needs Transportation Planning and Routing.

Each component has been analysed based on observations from fact (including interviews) together with an assessment of best practices leading to a set of recommendations. These results are then used to develop an E&E assessment for each component, which is then summarized to determine an E&E assessment of Routing and Technical efficiency as shown below:

Routing and Technology – E&E Rating:

Moderate

5.2 Software and technology setup and use

Any large and complex transportation organization requires the use of a modern routing and student data management system to support effective and efficient route planning. Effective route planning not only ensures that services are delivered within established parameters but also helps to predict and control operational costs. Modern software systems have the ability to integrate and synchronize with student accounting, communications, and productivity software. The integration of these software systems allow for more effective use of staff time and supports timely communications, data analysis and reporting. Web-based communication tools in particular can provide stakeholders with real time and current information regarding their student's transportation including service or weather delays, the cancellation of transportation, or school closings. To derive the greatest benefit from these systems, it is imperative that the implementation includes an examination of the desired expectations and outputs of the system to support comprehensive analysis and reporting. This section of the evaluation evaluates the acquisition, setup, installation, and management of transportation related software.

5.2.1 Observations

5.2.1.1 Routing software & related technologies

The OSTA has been operating on a common routing software platform, Edulog, since its formation. The former OCDSB transportation department was utilizing an older version and the combined staff have transitioned to the most recent version of the software. The Edulog agreement includes all software updates and maintenance, plus 15 percent annual update to the geocode. The only routing software change was the conversion to the updated version of Edulog for all staff. This occurred in 2008, although data conversion problems delayed full utilization of the combined database until late 2009.

One key enhancement to the base Edulog software, and several add-on and supplementary products are in use by the OSTA, as follows:

- *Shape server* – this add-on module to Edulog allows for GIS overlays to be placed on top of the underlying digital map. This capability is utilized by staff to facilitate updates to the map's street network, and to display additional information such as satellite images.
- *TRACS* – This web-based tool accesses the underlying Edulog data to provide customized reporting and data to stakeholders. Schools and bus operators have password protected access to customized menus of reports. The operators (carriers) have real-time access to route information and changes via TRACS. School administrators also have access to TRACS routing information. Each user (e.g. a

bus operator or school building) is only permitted access to the information directly relevant to them. TRACS also automatically generates email notifications advising schools and carriers of changes to the database in the prior day. Schools and carriers can, in turn, send email to the OSTA from within TRACS to request specific information.

- *WebQuery* – This add-on to Edulog provides access to student-specific data via a web portal. Utilizing a student's address, telephone, program, board of attendance and grade a user can access several elements of student-specific transportation information including: eligibility information for schools and transportation; bus stop and route assignment information and eligibility for transportation. Access is restricted in that the URL to access the tool is neither publicly available nor is it posted on the Consortium website. Rather, the URL required to access the tool directly is provided to individual staff members and school administrators and is utilized for internal purposes only.
- *Consortium Website* – the OSTA website provides access to static information on the Consortium such as policies and procedures and route information. Downloadable forms and live information on bus delays and cancellations are also available. The site has a "bus stop locator" tool that allows parents to access route information for their student by entering identifying information (for privacy purposes). Links to relevant information on Member Board websites are also provided on the site. Route information is posted to the OSTA website in late summer for the upcoming school year. This static information is left in place until October 1st, and is then taken down. It is removed because the changes made to the routes during ongoing operations makes the original data obsolete.

In addition to these tools, a telecommunications system is installed that provides a general access number plus a direct number to reach each geographic zone's planning team. A queuing system is included for calls when lines are busy, and two "back door" numbers are provided for direct access to OSTA staff by two stakeholders; one for carriers and the other for schools. The Consortium email system is hosted by the OCDSB. Individual addresses are provided for each staff member, with four general addresses provided and posted to the website corresponding to the four geographic planning zones. Finally, access to a suite of general office productivity software, such as word processing and electronic spreadsheets, is available to all staff.

Overall, the installed technology appears adequate to satisfy the needs of the Consortium and its stakeholders. Information availability to each stakeholder group is ensured, although restricting access to one key tool (*WebQuery*) unnecessarily diminishes its utility. The website bus stop locator tool does compensate somewhat for this shortcoming. Interviews indicate that communication via the technology tools, telecommunications, and email systems are meeting the needs of all stakeholder groups. However, there is no system in place to track issues and concerns raised by stakeholders, or to record when and how these issues are being resolved. Interviews also indicate a high level of overall use of the installed systems by Consortium staff.

5.2.1.2 System backup and disaster recovery

The email system is housed at, and administered by the OCDSB. All other technology is hosted by the OCSB technology department. OSTA has two stand-alone servers housed at the OCSB location that host Edulog, TRACS, and the OSTA website. All maintenance, backup, and restoration procedures are provided by OCSB staff utilizing OCSB protocols. Daily data backups are conducted, and data is routinely removed to offsite storage locations.

There is no separate, stand-alone OSTA data backup or disaster recovery procedure or protocol. The OCSB documentation was requested for review, but not provided as of this writing. While procedures discussed during interviews appear to be adequate, this could not be confirmed through a review of documentation.

5.2.1.3 Staff training

Formal training for Consortium staff has been limited to a single week-long Edulog training session. Staff that have recently joined the Consortium have generally learned the routing software on the job, with guidance provided by more senior staff. The entire staff is reported to attend regular webinars provided by Edulog to enhance their skills in using the software. There is no formal, documented training program for staff development in the use of the routing software or other aspects of Consortium operations.

5.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practices in the following areas:

Use of TRACS for information dissemination

The Consortium's extensive use of the TRACS software to distribute information to schools and carriers is in keeping with the best intent of the E&E Review process.

5.2.3 Recommendations

5.2.3.1 Issue tracking

A worthy addition to the set of technology tools currently in place would be a mechanism to capture, record, and track questions, concerns, and information requests received by the Consortium. This can be developed within TRACS or as a separate tool. The benefits to accrue from this would be to organize and ensure resolution of every request received via telephone, email, facsimile, or other means. Positive results were reported by staff for the most recent school start-up period, but the absence of a data system or a coordinated Consortium-wide approach to tracking requests prevents staff from building on their experience, improving processes and practices, or reporting this success in a meaningful way to the Board of Directors, Member Boards or other stakeholders.

5.2.3.2 System backup and data recovery

The Consortium should develop a formal procedure and protocol to ensure that a data loss or disaster that prevents access to the Consortium offices does not result in a major disruption to operations. The current approach whereby full reliance is placed on the OCSB technology staff, while potentially adequate from a data backup perspective, fails to provide a clear procedure to be followed by staff in case of a major problem. The recommended procedure and protocol should establish clear step by step instructions to recover lost data and to establish operations quickly and effectively in offsite locations such that service interruptions are minimized.

5.2.3.3 Training and staff development program

The Consortium has experienced extensive staff turnover. Operational practices are still being enhanced and developed to optimize operations, and future routing effectiveness and efficiency initiatives are being contemplated. A comprehensive, ongoing staff development and training program would support these changes and enable ongoing, continuous improvement in Consortium operations. The program should include general sessions for all staff, and targeted instruction to meet the needs of specific individuals and position descriptions within the organization. It should include the establishment of specific knowledge and skill requirements for each position and individual, should include regularly scheduled development and training sessions, and should be tracked with documentation of schedules, agendas, and training completed.

5.3 Digital map and student database management

An accurate digital map is paramount to support effective route planning and also the effectiveness of the staff and the efficient use of the fleet. This aspect of the E&E Review was designed to evaluate the processes and procedures in place to update and maintain the map and student data that forms the foundation of any student transportation routing system.

5.3.1 Observations

5.3.1.1 Digital map

There is one comprehensive digital map within Edulog covering the entire OSTA service area. This map was installed in 2003 as a replacement for the map acquired by the OCSB with the original installation of Edulog. The source data for the current map was the Ottawa municipal GIS system. The map includes the street network and several additional layers, such as water features and railroad tracks that provide additional utility. The map is also color coded whereby different road types, such as limited access highways, are rendered in different colors for ease of identification and use.

Maintenance and updates are completed manually using the MARIS map maintenance module of Edulog, and GIS data overlays provided by the municipality and rendered using the Shape server tool described previously. Access to MARIS is restricted to the OSTA Systems Coordinator and Systems Administrator, thus ensuring a high degree of control over map accuracy. The overall approach to the provision of an accurate and complete map, and the map maintenance protocols in the Consortium are excellent.

5.3.1.2 Map accuracy

The map is accurate and complete. An analysis of the data indicates that just 108 out of approximately 111,000 student records have addresses unmatched to the map, or less than 1/10 of one percent of all student records. These primarily relate to students who reside outside the jurisdiction of the greater city of Ottawa. This is an excellent result.

5.3.1.3 Default values

The OSTA Systems Coordinator and Systems Administrator are responsible for tuning the map and setting all system defaults. The 2003 map was tuned, with system defaults established by OCSB staff, before the formation of the Consortium. Minor changes continue to be performed on the map. However, changes to the settings on individual street segments are restricted and are only performed when identifiable problems or errors are encountered. There must be a clear reason why the underlying map value, such as the default road speed, should be set differently for a particular similar segment. Otherwise, the approach followed is to adjust individual route timing as required.

Boundaries are indicated on the map for all attendance areas, and are reported by staff to be mostly accurate. Exception / hazard boundaries are not all accurately represented in the system. Currently, there is an inconsistency in this area. Before the formation of the consortium, the OCSB identified hazards by individually tagging street segments as “no travel”, “no walk”, or “no cross”, as appropriate to ensure safe walking conditions. The OCDSB identified hazards using boundaries set up in the map. This is the approach utilized by Edulog to accurately calculate eligibility and properly assign eligibility codes to individual students. This discrepancy has carried over to the combined system, resulting in inaccurate coding and calculation of eligibility. Hazard boundaries in the consolidated Edulog system are therefore incomplete, and a change to a common approach has not yet been undertaken. This is an ongoing problem currently being addressed by staff. The implications were discussed in the Policies and Practices section of the report.

Carriers are contractually obligated to submit “route statistics” as of October 31st each year. These indicate actual route directions, timing, distances, and loads as recorded by the bus drivers. This data is validated by the Transportation Assistants, and route adjustments are made within Edulog as appropriate. Required map changes resulting from this process are brought to the attention of the Systems Coordinator and Systems Administrator for action.

The maintenance process, the establishment of default values, the visual representation provided, and the accuracy of the underlying digital map all appear to be excellent, thus providing a critical tool and building block for effective and efficient route planning and development.

5.3.1.4 Student data management

The Edulog student database contains all student records from both Member Boards, regardless of transportation eligibility. The source data is from the individual Member Board student information systems, which are Trillium for the OCDSB, and eSIS for the OCSB. The Member Boards are responsible for the accuracy and completeness of the student data entered into their respective student information systems. OSTA has a standard four-day turnaround time for making changes to transportation based on the data submitted by the Boards. Addressing issues are returned to individual schools for action, and are handled via the daily update process described below.

All data transfer is electronic. It is fully automated in the case of the OCSB, and requires minor intervention for the OCDSB. This is the result of the OSTA servers being behind the OCSB firewall. Systems staff is working on establishing a portal that will allow for the automated transfer from OCDSB. In both cases, a file extract is created from the SIS, and brought over to the OSTA system where it is uploaded into Edulog.

A full download of student data is performed weekly throughout the school year, with the data uploaded either into the live database and/or the planning database as appropriate. A daily add/change extract is pulled from each Member Board and loaded into Edulog for action by the Transportation Assistants. There is no automatic update of transportation information within Edulog. Each record must be examined by the Assistants, the nature of the change determined, and appropriate action taken. Deleted student records are handled via the weekly download process. A comparison of records in Edulog to those in the weekly download is conducted to determine which student records should be deleted from the Edulog database.

The Transportation Assistants are tasked with examining every changed record on a daily basis. Edulog reports are generated by geographic region and list student records with a change from the prior night's download. Any record receiving a change to any of five transportation-related fields (school, grade, program, home, or alternate service address) is examined. The assistants examine each record by comparing the uploaded data in the live Edulog database with the same record from the backup database for the previous day. The changes in the record must be determined through examination. The specific changes made are not tagged or easily identifiable in every case. Some of the changes have no impact on transportation requirements (e.g., telephone numbers, which are included as part of the address), but each record must still be "touched" by the Assistant before it can be removed from the daily change list. Errors in the data (e.g., addresses that don't match the map) are supposed to be sent back to the schools to be rectified. In practice, the Assistants will generally correct minor errors within Edulog directly. They will also correct other errors, but will inform the schools via telephone or email to make corrections within the SIS as well. The weekly download is used for identifying student records that are to be deleted.

Overall, while this process results in an accurate database, the process itself is somewhat onerous and unnecessarily complex. By intervening in the data transfer process and forcing every changed record to be examined, regardless of whether that change causes a transportation requirement to be altered, the Consortium is creating extra work. Also, the inability to distinguish what has changed from the daily report causes each Assistant to expend significant time discerning the nature of the change even before any action can be taken or, in many cases, simply to determine that no action is required.

A particular problem arises in regard to special needs student data management. Much of the activity associated with the identification, recording, and management of the transportation requirements for these students is necessarily conducted exclusively within Edulog, and the information required is not always duplicated within the student information systems of the Boards. A common practice in the industry is to "lock" these records to prevent the more detailed information and changes within the routing software database from being overwritten in the daily or weekly download process with less complete or inaccurate data in the student information systems. This does not occur in the OSTA, and it appears to be causing an issue with special needs student data defaulting back to whatever is recorded in the Board's SIS, which is generally less complete than what is in Edulog. As a result, route assignments developed on the basis of a student location and program assignment combination are getting disconnected, causing the students to be unassigned from bus runs and resulting in data inaccuracies and management problems for OSTA staff. One hundred and forty one of 1,779 special needs runs in Edulog currently indicate a zero load even though the runs are live and in operation. This may be a result of this data problem.

The annual rollover of student grade information is conducted by the individual Member Boards, generally around April of each year. Prior to this, the OSTA establishes a new Edulog database that becomes the planning database for the following school year. Once the rollover is completed, the revised student data is loaded into the planning database, together with all future updates. This becomes the live database following the close of the school year. Staff duplicate additions and changes in both databases prior to the close of the school year.

5.3.1.5 Coding structures

The OSTA has customized the coding of student records in Edulog to meet the analytical and reporting needs of the Consortium. The system eligibility code calculated by Edulog is based on the student's home or permanent address. If an alternate address is approved, it is entered in the AM/PM transportation address fields, and separate eligibility codes are calculated based on these addresses. The user eligibility code and travel code is then entered to reflect the specific situation for each student. This combination does facilitate extraction for reporting and analysis, but careful attention must be paid to the actual combination of codes assigned in order to accurately assess the status of each individual student. For example, there are 38,375 students that receive both a system eligibility code of "0", and a user eligibility code of "0" indicating that they are eligible for transportation without exception. There are also 1,176 students that receive a system eligibility code of "12", indicating that their primary address is "out of boundary" for their school of assignment. But these 1,176 students are manually assigned a user eligibility code of "0", indicating that the Consortium has intervened and made them eligible for transportation. It is not immediately clear from this exactly why these students have become eligible. It is likely that they have an approved alternate address that is within the transportation eligibility zone for their school of attendance, but this is not immediately clear from an examination of the coding structure. Other examples such as this exist when examining the combination of system and user eligibility codes

assigned. The following table summarizes the system eligibility and user eligibility codes for all students in the database.

Table 5: All students by system and user eligibility code

User Eligibility	System Eligibility						Total
	Eligible 0	Elig Haz 1	OOB 12	Walk 13	Geocode 93	Default 99	
0	38,375	160	1,176	804	-	1	40,516
1	92	2,965	124	90	-	-	3,271
2	3,332	79	741	1,222	1	-	5,375
3	7	-	-	40	-	-	47
4	504	84	75	53	-	-	716
5	-	-	1	1	-	-	2
6	628	24	1,447	389	7	10	2,505
7	-	-	70	3	-	-	73
8	134	-	13	3	-	-	150
9	62	-	1	4	7	-	74
10	1	-	-	-	-	-	1
12	71	7	7,075	192	-	-	7,345
13	590	185	1,053	42,341	-	-	44,169
14	135	32	673	3,328	-	-	4,168
15	168	10	188	142	-	-	508
16	652	82	42	123	-	-	899
17	190	22	99	395	-	-	706
18	2	-	-	1	-	-	3
19	9	3	395	2	-	-	409
23	-	-	-	3	-	-	3
60	67	26	9	2	-	-	104
63	2	-	7	42	-	-	51
64	1	-	-	1	-	-	2
68	1	1	-	2	-	-	4
99	13	1	2	4	-	-	20
134	-	-	-	1	-	-	1
146	11	1	-	-	-	-	12
147	-	-	-	2	-	-	2
213	-	-	-	1	-	-	1
912	-	-	1	-	-	-	1
1213	-	-	-	1	-	-	1
1466	1	-	-	-	-	-	1
9139	-	-	-	1	-	-	1
Total	45,048	3,683	13,204	49,206	108	110	111,141

The student record is coded with the system and user eligibility codes, as described above. In addition, the student record is coded with the student's school of attendance, travel code, program (if applicable), and board assignment. The special needs flag within Edulog is not consistently utilized as an identifier, nor are the 16 customized special needs codes that become available once this flag is enabled. Text fields on the student record are used to record certain relevant information for day-to-day use by the Assistants and Coordinators, but these are not easily accessible or consistent enough for use in analysis or reporting.

Bus runs are coded such as to be identifiable for school serviced, whether they are morning, afternoon, or midday, and whether they are regular education, special needs, or specialized program runs. The route description also notes the schools serviced and the route code itself provides contractor identification. There is no unique identification, however, of runs by type (e.g., whether they serve multiple schools, are shared by Board, include transfers, etc.). This approach to the coding of bus runs and routes is adequate, but limits the ability of staff to easily extract and manipulate data for analytical and reporting purposes such as developing key performance indicators.

5.3.2 Best Practices

Digital map accuracy and maintenance processes

The Consortium has established excellent digital map maintenance processes and protocols that result in a highly accurate underlying map, which is a critical element in developing and maintaining an accurate system of bus routes and schedules. This represents a best practice that can be emulated by other transportation consortia in the Province.

5.3.3 Recommendations

5.3.3.1 Enhanced coding structure

The student, run, and route coding structure as currently designed meets the operational needs of the Consortium. Enhancements should be considered, however, to enhance the overall utility of the system for operations, analysis, performance measurement, and reporting. These should include:

- A rationalization of the codes to more clearly indicate the status of each student within the combination of system and user eligibility codes, and to eliminate the use of codes that describe only a very small subsets of students;
- Rigorous use of the special needs flag and customizable special needs codes to more accurately identify, and represent the particular requirements of each special needs student within the system; and
- Modified run coding to provide an indication of the nature of the bus run or route, such as whether the run services multiple schools, includes transfer students, or is shared between Boards.

5.4 System reporting

A key benefit of modern routing software is the ability to quickly gather, collate and analyze large data sets. These data sets can then be used to communicate a wide variety of operational and administrative performance indicators to all stakeholders. Actively using transportation data to identify trends that may negatively impact either cost or service, and communicate both expectations and performance is a key component of a continuous improvement model. This section will review and evaluate how data is used to evaluate and communicate performance and assess organizational competencies in maximizing the use of data retained in the routing software and related systems.

5.4.1 Observations

5.4.1.1 Reporting and data analysis

There is no regular program of performance reporting or measurement currently in use at the OSTA. Operational data and reports are available to the schools and carriers via TRACS, as described previously. The reports utilized internally by OSTA staff are primarily those associated with the daily additions and changes, which are printed and used in the manner described previously. Other reports are generated as data extracts for operational purposes on an as needed basis. It was reported, however, that the Coordinators regularly create and review bus utilization or time reports and a shared route weighted load report, although these reports were not reviewed as part of the E&E Review. Also, there are a number of customized reports that have been developed for operational purposes, including:

individual route schedules for each school, weighted load calculations for costing, form letters, reports for collection of statistics and the reporting required by the annual Ministry survey, route planning reports, passenger lists, route reports, and data extracts for export to student information systems.

5.4.1.2 Performance measurement

Information is presented to the Board of Directors on an as needed basis, but there is no regular reporting or Key Performance Indicators in continuous use. There were examples presented of data used for analysis and decision making, such as a parent survey conducted as part of the Barhaven bell time analysis, but there is no program whereby performance statistics are calculated, reported, or tracked over time.

5.4.2 Recommendations

5.4.2.1 Key Performance Indicators

The Consortium should develop a regular performance measurement, tracking, and reporting program to support effectiveness and efficiency improvement efforts, and to communicate transportation system performance to stakeholders. Many excellent examples of similar programs exist throughout the Province that can be emulated and customized to the unique conditions in the OSTA service area. The program can begin on a small scale, with just a few key measures such as number of students transported, average capacity utilization on buses, and number of vehicles in use. Once experience has been gained with the data and analytical processes required to support the program, additional measures and reports can be added to improve the utility of the overall program. The program should focus on achieving a balance between the level of detail sought and the complexity and effort involved with the data extraction, calculation, and reporting. A key element regardless of the measures chosen and the periodicity of reporting is to be consistent in when and how the measures are calculated. A key benefit to a program of performance measurement is the analysis of trends over time, and this is only possible when there is consistency in the program and the measures tracked.

5.5 Regular and special needs transportation planning and routing

Effective route planning is a key function of any high performing transportation operation. This section of the report evaluates the processes, strategies, and procedures that are used to maximise the use of the fleet, control costs while delivering a high level of service to students.

5.5.1 Observations

5.5.1.1 Bus route planning and management

To date, the combined Consortium use of Edulog has been primarily limited to the maintenance of current routes, and the adjustment of these routes for the next school year. The two large-scale efficiency analyses completed (see description in Policies and Practices section) utilized data from Edulog, but were not conducted as simulations within the system. There is, however, some use of optimization, clusters and other features available in the software. The Coordinators, in particular, use the optimization feature in their annual route planning and efficiency review.

Route planning is a primary responsibility of the Transportation Coordinators. As discussed, only two comprehensive efficiency analyses have been completed to date, with one (Barhaven) carried forward to implementation. Other changes have been completed on a tactical level as part of the annual route planning cycle, but these have not been comprehensive, coordinated efforts. Several other route efficiency opportunities have been identified as part of this regular process, including a review of walk zones at 23 OCSB schools that is reported to have resulted in savings of 24 school bus vehicles prior to the 2009-2010 school year.

There is no documented guidance for the route planning of special needs students. As described in the Policies and Practices section, the responsibility for planning is dispersed among the Transportation Coordinators, and is different for the two Member Boards. There is no common procedural guidance provided to the planners, and there is no current coordination of special needs transportation on a systemic basis. Staff reports that they will search for opportunities to share services across Boards on a situational basis when there is an opportunity to do so, but overall planning is still separated. One exception is that this year the OSTA completed advanced planning and combined route design for all special needs students (from both Member Boards) attending McHugh classes, which is a common program location for students from both Boards.

Integration of special needs and regular students occurs only to the extent that the student does not require any specialized transportation requirement. Regular education students do get assigned to special needs vehicles however, for efficiency reasons and to meet particular family needs such as to keep siblings riding together. The data indicate that 150 regular students are assigned to special needs vehicles for efficiency reasons, and just four for “compassionate” reasons.

5.5.1.2 Analysis of system effectiveness⁸

Current route, run, student, and bell time data was extracted from the Edulog system to analyze system effectiveness. Table 6 summarizes the average capacity utilization across all 4,330 individual bus runs that comprise the OSTA transportation network. These calculations were completed using the planned maximum loads for each bus run, defined as the “max load” allowable by the Consortium. The results are broken down for regular, midday, program specific, and special needs bus runs.

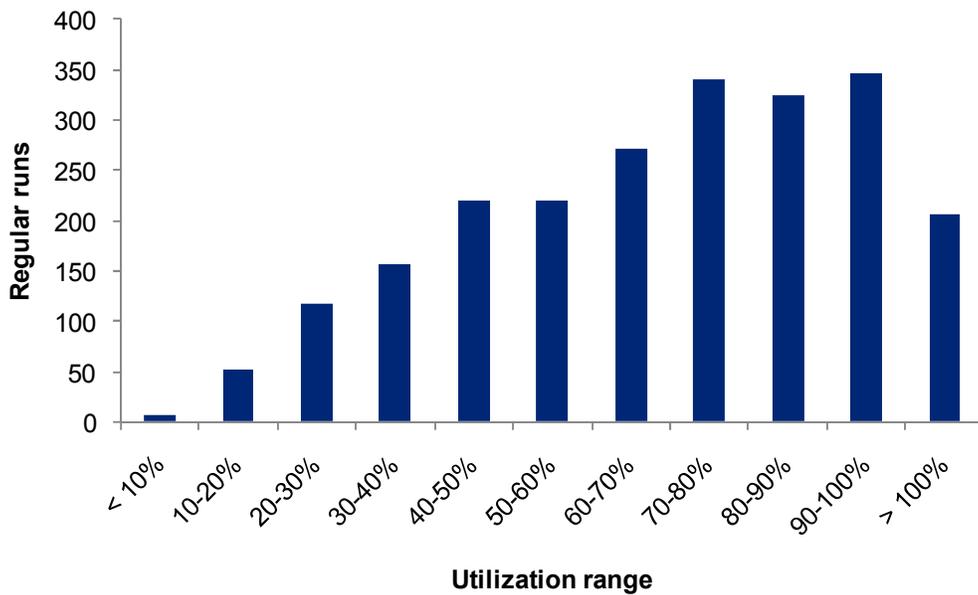
Table 6: Average capacity utilization

Run Type	Planned Capacity Utilization	
	Average Capacity Utilization	Count of Runs
Regular	70%	2,261
Midday	28%	468
Program Specific	36%	40
Special Needs	51%	1,661
System wide	58%	4,430

The overall results are at the low end of expected ranges for both regular and special needs transportation, given the overall operating conditions and geography of the OSTA service area. Figure 7 illustrates that capacity utilization is fairly consistent for regular education bus runs, with the bulk of runs achieving capacity utilization results in the upper end of the range. Given the existence of a predominantly rural section of the service area, having some runs at a lower level of utilization is to be expected.

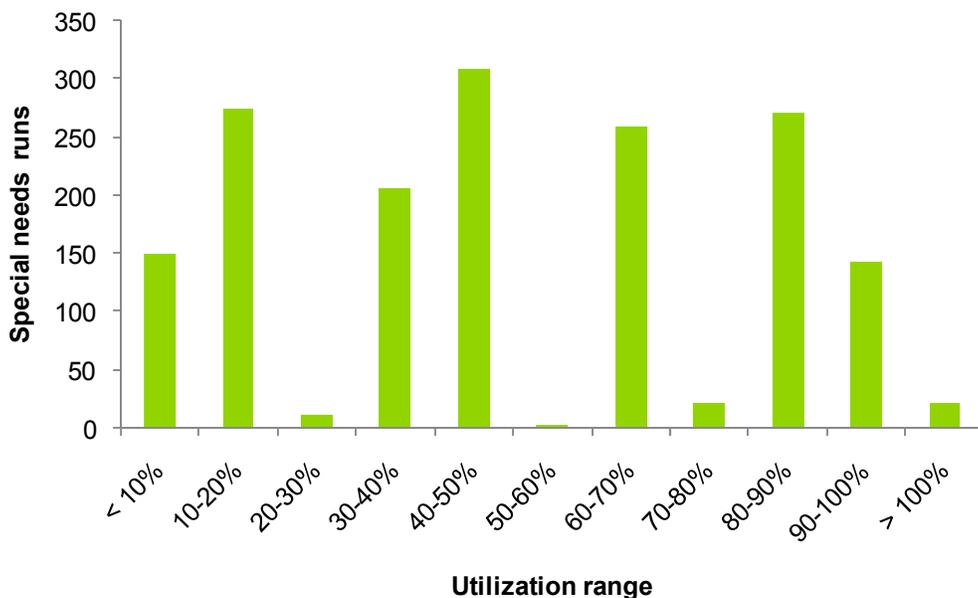
⁸ All data reported in this section of the report refers to data collected while the E&E team was on site. There may be inconsistencies with some previously reported Ministry data due to the different timing of the data collection.

Figure 7: Count of runs by utilization range (regular runs)



A similar presentation for special needs runs (Figure 8) reveals less consistency and raises considerable questions regarding the efficiency of route planning for this component of the system. This is particularly true when it is recognized that the vast majority of special needs bus runs are serviced by small vehicles. More than 96 percent of these runs are serviced by vehicles with a *planned* capacity of six or fewer. This compares with more than 95 percent of all regular runs serviced by vehicles with a planned capacity of 48 or more. System-wide, nearly 40 percent of all bus runs are serviced by small vehicles with a planned capacity of less than 20 students.

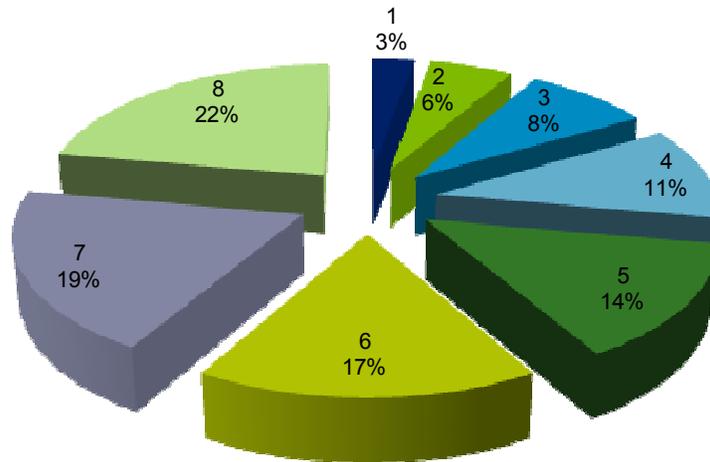
Figure 8: Count of runs by utilization range (special needs runs)



Of equal importance to capacity utilization is how effectively the system reuses each individual bus over the course of the service day. By focusing exclusively on regular transportation runs, it is possible to gain a sense for how effectively school bell times are coordinated to facilitate more reuse, and hence greater transportation efficiency overall. Figure 9 illustrates the average number of daily runs performed by all

vehicles with a planned capacity of 36 passengers or more. Eighty-three percent of this portion of the fleet performs at least four daily (two morning, and two afternoon) runs, with 58 percent performing at least six daily runs. This is indicative of a system that achieves a fairly high degree of run tiering and bell time coordination.

Figure 9: Count of daily runs (buses with planned capacity > 36)



This conclusion is further reinforced with an examination of school bell times and fleet deployment. Figure 10 illustrates the count of students transported to schools starting at each of the time slots indicated for the OCDSB and the OCSB. What becomes visible is the clustering of students at regular intervals, but with a natural grouping into two distinct time tiers (groupings of schools at specific time intervals) centered approximately on 8:15 and 9:10, with some variability around these time slots. This is the dynamic that facilitates multiple uses of buses, which is further illustrated in Figure 11.

Figure 10: Students transported by school start time

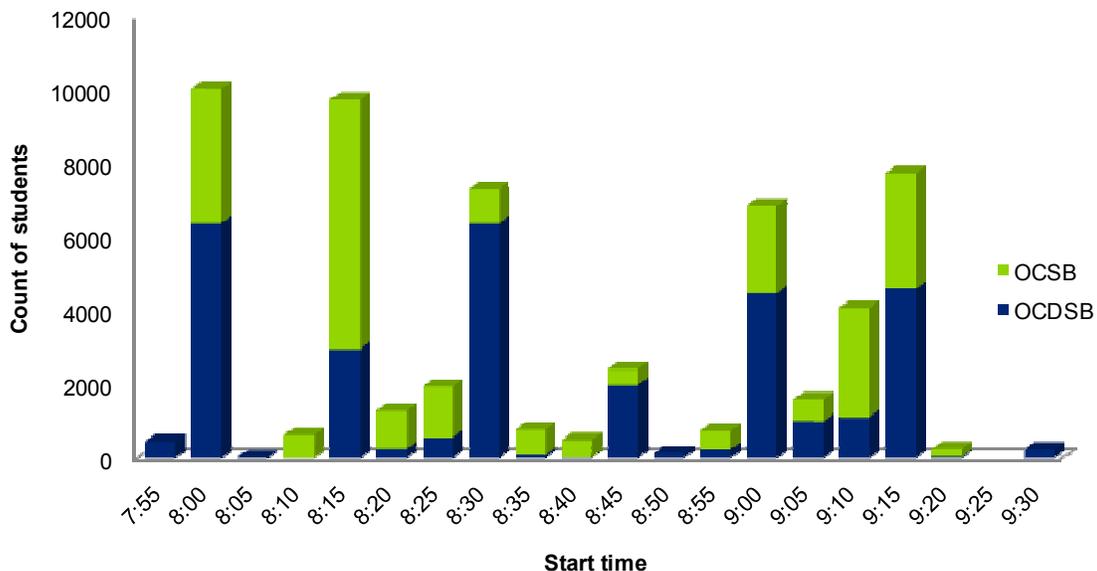
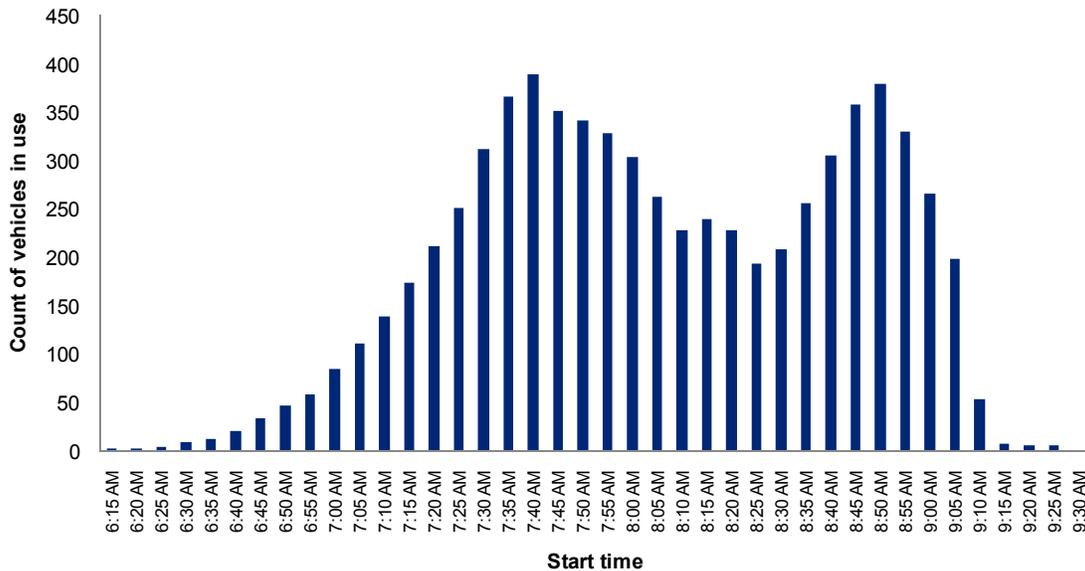


Figure 11 illustrates the number of buses in use actively carrying students at each five minute interval during the morning transportation period. The two distinct peaks that appear at 7:40 and 8:50 are indicative of a well balanced two-tier system whereby relatively equal numbers of students are being

transported on each tier, facilitating equal use of the fleet across the time range. Also apparent is the generous amount of slack time between the two peaks where the number of vehicles in use drops off significantly. This is indicative of a system that is not under time pressures in completing bus runs, and is also a manifestation of the spread in start times around the two peaks. The peak deployment appears to happen before the actual start times of the schools because students are generally delivered to schools before the actual start time.

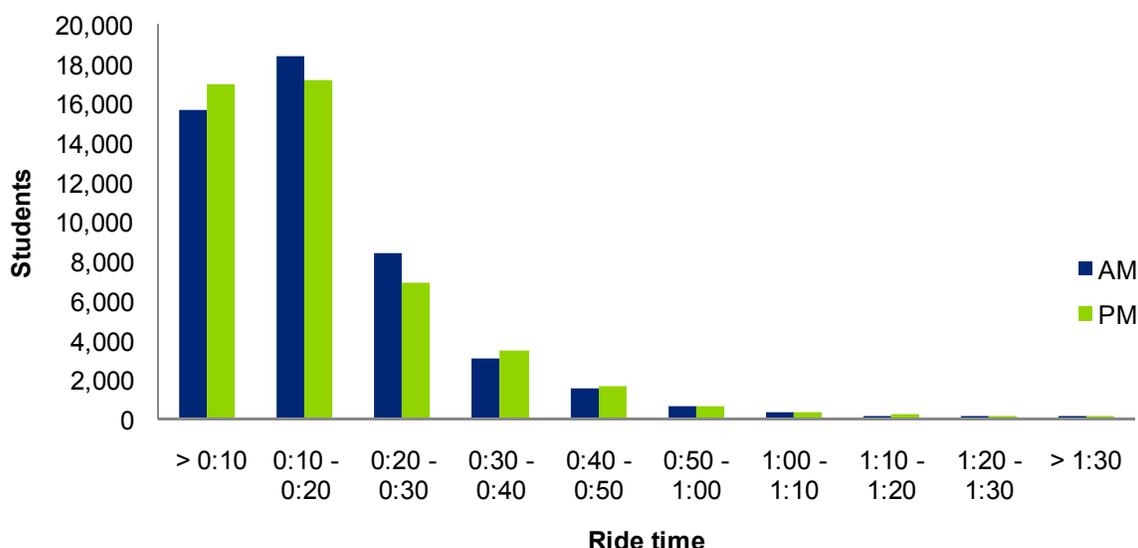
Figure 11: Morning fleet deployment (regular bus runs only)



Another technique in use by OSTA is to service more than one school on common bus runs. These “combination runs” pick-up students attending more than one school and then drop off at each school in sequence. This differs from a dedicated run where all students on the bus attend a single school. Combination runs help maximizing capacity utilization; particularly in geographic areas where run tiering is not feasible. The analysis indicates that approximately 20 percent of all bus runs service more than one school.

Maximizing capacity utilization and asset utilization (the number of runs performed each day) are the key factors leading to an efficient system. Student ride times represent a key factor in determining whether a system is also effective. If, for example, high levels of capacity utilization are being achieved by making individual bus runs exceedingly long, then an inappropriate balance is being struck between efficiency and effectiveness. Figure 12 illustrates current student ride times in ranges for both the morning and the afternoon. Fully 99 percent of students have morning and afternoon ride times under 60 minutes. Meanwhile 97 percent are under 50 minutes and 88 percent are under 30 minutes. The average ride time is 17 minutes. While the overall levels of capacity utilization and the reuse of buses over the service day are within acceptable ranges, this result is indicative of a very high level of service and the potential for further improvements to efficiency in the future.

Figure 12: Student ride times



One of the intentions of the E&E Review process is to promote the development of an integrated transportation system for all Member Boards of the Consortium as part of an effort to improve the overall efficiency of transportation service delivery. An analysis of current sharing of runs and routes between Boards indicates that just 50 of more than 4,400 individual bus runs (just over one percent) have students riding who attend schools from both Member Boards. Meanwhile, 124 of more than 1,700 bus routes (just over seven percent) of bus routes contain bus runs servicing schools associated with more than one Member Board. Despite the positive results illustrated by the overall analysis of system effectiveness and efficiency, this and other indicators provide an illustration of the progress still to be made, and the potential for increasing overall effectiveness and efficiency of the transportation system in the future.

5.5.2 Recommendations

5.5.2.1 Special needs route efficiency analysis

As recommended in the Policies and Practices section, the Consortium should develop a revised approach to special needs route planning that centralizes this important function with a single team of route planners, and that instils a more rigorous approach to data management and tracking. Concurrent with this should be a comprehensive evaluation of the special needs routing scheme. Marginally acceptable capacity utilization is achieved in the current system, but a large proportion of bus runs are completed using small vehicles and there appears to be an opportunity to improve efficiency further.

5.5.2.2 Regular program of route efficiency reviews

The Consortium should build upon the changes incorporated to date and the recommendations in the Policies and Practices section by establishing a regular program of route efficiency analysis and improvement. The current system provides a very high level of service quality at a reasonable level of efficiency, which provides an excellent base from which to evaluate future changes. The emphasis should be placed on achieving an acceptable balance between service quality and system efficiency as Member Board policies continue to evolve and become more harmonized. The goal should be to achieve a higher level of integration between the Member Boards by evaluating school bell times together with standards of service such as ride times and courtesy transportation. The Consortium should lay out a schedule whereby the entire system is scheduled for a comprehensive review and analysis over the next several years.

5.6 Results of E&E Review

Routing and technology has been rated as **Moderate**. There are many positive elements to the OSTA transportation network and the routing and technology backbone by which it is managed. The quality of the underlying digital map in the routing software is excellent, and most staff members demonstrate excellent knowledge and use of the system. The effectiveness of the system is evident in the data analysis, with high levels of service quality evidenced by student ride times and reasonable school start and end times. Capacity and asset utilization are also appropriate. However, there is a clear opportunity

to improve effectiveness and efficiency further through reorganization of the special needs routing function and approach, judicious bell time realignments, re-evaluation of the policy justification for courtesy riders, and aggressively pursuing further run and route integration among the Member Boards.

6 Contracts

6.1 Introduction

The Contracts section refers to the processes and practices by which the Consortium enters into and manages its transportation and other service contracts. The analysis stems from a review of the following three key components of Contracting Practices:

- Contract structure;
- Goods and services procurement; and
- Contract management.

Each component has been analyzed based on observations from information provided by the Consortium, including information provided during interviews. The analysis included an assessment of areas requiring improvement that were informed by a set of known best practices identified during previous E&E Reviews. These results are then used to develop an E&E assessment for each component. The E&E assessment of contracting practices for the Consortium is as follows:

Contracts – E&E Rating:

Moderate-Low

6.2 Contract Structure

An effective contract⁹ establishes a clear point of reference that defines the roles, requirements, and expectations of each party involved and details the compensation for providing the designated service. Effective contracts also provide penalties for failure to meet established service parameters and may provide incentives for exceeding service requirements. Contract analysis includes a review of the clauses contained in the contract to ensure that the terms are clearly articulated, and a review of the fee structure is conducted to enable comparison of its components to best practice.

6.2.1 Observations

6.2.1.1 Bus operator contract clauses

The Consortium has standardized, executed contracts with all of its bus operators; the contracts are valid from September 2010 to June 2011, but were not executed until after September 1, 2010.

Other noteworthy clauses in the contract include:

- Fee structures, payment schedules, and adjustments due to inclement weather and labour disputes;
- Fuel escalation and de-escalation adjustments;
- Calculation of route distances and driver time;
- Vehicle configuration and loading capacities;
- Compliance requirements with respect to the contract, provincial and federal legislation, and Consortium and Member Board policies;
- Minimum route distances – operators are guaranteed a minimum variable cost payment, which is incremental to the fixed cost base rate;

⁹ The word Contract in this context refers to detailed documents outlining the scope of services, rates and expected service levels. The phrase Purchase of Service agreement is used in this report to describe a less detailed document that only outlines the services to be provided and the rates at which they are to be provided.

- Vehicle age requirements – there is a maximum vehicle age of 10 years for routes with students from the OCSB (including integrated routes), 12 years for routes with only students from the OCDSB, and 12 years for spare vehicles used on a temporary basis; and
- Training requirements – each operator must have two school bus safety meetings every year. All drivers assigned to a route that includes students with identified life-threatening allergies need to attend an EpiPen training session prior to their driving a bus (and if a replacement driver is assigned to the route, the replacement driver needs to be appropriately trained). However, drivers for routes that do not have students with these allergies do not necessarily have EpiPen training. All drivers will also be required to have emergency first aid training, and maintain said training – new drivers have sixty days from their date of employment to acquire such training.

The Consortium typically begins negotiations with the Ottawa-Carleton School Transportation Association (“OCSTA”) in May and negotiations continue until a contract is ratified. If the school year begins before the new contract is ratified, there is an informal understanding that the prior year’s contract will be temporarily extended until the new contract is ratified. The standardized contracts do not have clauses for the extension of service, nor is there a clause delineating how disputes will be resolved. There is also no clause on camera use.

Operators are given a list of names, pick up times, addresses, emergency contact numbers and known medical conditions for the students on a route. This information is provided in late August and operators attempt to dry run a sample of these routes once the information is received, although there is no clause requiring a dry run. Operators have web access to student and route information through the TRACS interface.

New routes are allocated proportionally by the Consortium, based on the operators’ volume or number of runs with the Consortium. Route reallocations are done based on geography and proportionally, with proportions being adjusted for the operator losing the route. There is no clause explicitly detailing the Consortium’s right to reallocate routes or to allocate new routes.

6.2.1.2 Bus operator compensation

Compensation rates are standardized among regular bus operators and among small vehicle operators; this is a result of the negotiations between the Consortium and OCSTA.

Payment for regular and kindergarten routes is comprised of a fixed cost base rate and a per kilometre rate. Payments depend on vehicle size. There is a minimum kilometre payment, which the Consortium is in the process of reviewing and analyzing. Additionally, if a driver’s route(s) exceed four hours, the Consortium shall pay the operator an incremental flat rate.

There are separate payments for mid-day kindergarten routes, which are based on a daily rate plus a per kilometre rate – there is also a minimum payment for mid-day kindergarten routes.

The contract also outlines special arrangements for unique events:

- Cancellations arising from inclement weather – the operator will be paid the full daily rate for five days, after which the payment will be reduced to 75% of fixed costs; and
- Cancellations arising from school closures or Member Board labour disputes – the operator will be paid the full daily rate for ten days, after which the payment will be reduced to 75% of fixed costs. If cancellations arise due to an operator’s operational issues (e.g., labour dispute), the contract is suspended for the period during which services are not provided, and there is no compensation.

The contracts also delineate certain premiums for high-visibility buses servicing the OCSB and for small vehicles servicing the OCSB; these premiums are temporary and are expected to be phased out in future contracts, as the Member Boards’ policies are harmonized.

6.2.1.3 Taxi operator contract clauses

While the Consortium does not directly contract with taxi operators, some of its small vehicle operators subcontract to taxis companies – these taxi operators must abide by the terms of the small vehicle operator contracts, as described above.

6.2.1.4 Parent drivers

Discussions with the Consortium indicate that there are no parent drivers at this time, except for the Provincial Schools. The parent driver contracts outline the parent driver's responsibilities, insurance requirements, compliance requirements, and the payment terms. Photocopies of insurance and driver licenses were attached to the signed contracts. The contracts were executed after the start of service.

6.2.1.5 Public transit operator contract clauses

The Consortium provides public transit tickets or passes to eligible students, where such service is deemed to be cost effective and aligned with its Public Transit Services policy. The Consortium purchases the tickets from the transit agency directly, under a normal, executed consignment agreement.

6.2.1.6 Provincial Schools operator contracts

The Provincial Schools' transportation needs are met through a variety of service providers: charter airline companies, small vehicle operators, and parent drivers.

The contract between the Consortium and its air charter services provider documents the relationship between the Consortium and the operator; the contract was executed before September 1, 2010. Key clauses address:

- The services being provided and the limitations therein;
- Compliance with applicable provincial and federal legislation;
- Confidentiality requirements and criminal background checks,
- Compensation structure and the payment schedule;
- Insurance, indemnification and force majeure provisions; and
- Term of the agreement (September 7, 2010 to June 30, 2011) and termination rights.

The Provincial Schools' small vehicle operator contracts are similar to the Consortium's bus operator contracts, and were executed after September 1, 2010.

Provincial Schools' transportation needs are also met by parent drivers; please see Section 6.2.1.4.

6.2.2 Best Practices

It is recognized that the Consortium has demonstrated best practice in the following areas:

Standard contracts

The Consortium has standard contracts in place for operators, which outline legal, safety and other non-monetary terms. This ensures the contractual relationship between transportation service providers and the Consortium is defined and enforceable. The Consortium should make every effort to ensure that contracts with Bus operators, and in fact all providers of transportation services including parent drivers, are signed (not just ratified) prior to the start of the relevant service period.

Vehicle age

The Consortium's requirements for maximum and average vehicle ages are aligned with the provincial average of 12 years, which is considered to be a best practice.

Municipal transit operator agreement

The Consortium has a bus/transit pass and ticket consignment agreement with its municipal transit authority. The availability of such an agreement helps clarify the terms under which services are to be provided and also provides security in the event of a dispute.

6.2.3 Recommendations

6.2.3.1 First Aid safety training

The Consortium currently requires drivers to have first-aid training within 60 days of the start of employment. It is recommended all drivers are qualified to manage emergency situations from the first day of employment. Additionally, while the Consortium requires that all drivers be trained to use an

EpiPen prior to beginning a route that includes students with identified life-threatening allergies, it is highly recommended that all drivers be provided with EpiPen training to ensure all drivers are appropriately trained to deal with life threatening emergencies as it is not only students with identified allergies that can have a serious allergic reaction.

6.2.3.2 Contract validity extension period

If the school year begins before a new contract is ratified, there is an informal understanding between the Consortium and the operators that the prior year's contract will be temporarily extended until the new contract is ratified. If negotiations for the following year's contract are going to continue beyond the start of the following school year, this understanding should be formally documented by either including a provision in future contracts that automatically extend the contract validity period or in a signed letter of understanding between the Consortium and the operators.

6.2.3.3 Dispute resolution

A clause regarding dispute settlement should be included in future operator contracts. This will ensure that there is a formal process whereby disputes can be settled without the need for a reduction in service levels or litigation. This process should be neutral and transparent.

6.2.3.4 Route allocations

The Consortium should review the methodology used when assigning routes to specific operators. It is recommended that the Consortium modify its route allocation methodology to ensure that route allocations take into consideration past operator performance. A rotational or proportional system for assigning and deducting routes may not be providing the Consortium with the optimal equipment or service and does not reward those operators that provide superior service or equipment to the Consortium.

6.2.3.5 Operator compensation

It is recommended that the Consortium review its operator compensation formula to ensure that only costs incurred by operators in the event of inclement weather closures are compensated. The Consortium should also continue its review of the impact of the minimum kilometre payment.

6.2.3.6 Operator subcontracting

The Consortium should consider the appropriateness of allowing its operators to subcontract transportation services to taxis, given the high service and safety standards that operators need to meet and the difficulties the Consortium may face in verifying that all subcontractors are in compliance with all contract requirements. If this practice continues, the Consortium will need to modify its monitoring procedures to ensure all vehicles used to transport students are in compliance with contract requirements, whether the vehicles are directly contracted or subcontracted.

Municipal transit cost-benefit analysis

The Consortium should consider conducting more rigorous cost-benefit analyses when evaluating whether student transportation is best provided by municipal transit (i.e., analyzing students and routes in the context of optimizing the entire system instead of analyzing students and routes in isolation). This would ensure standardized and transparent analyses that would facilitate the Consortium receiving the best value for money and operational efficiency.

6.3 Goods and Services Procurement

Procurement processes are intended to provide an avenue by which the Consortium, as a purchaser of services, can ultimately obtain the best value for money. The goal of the Consortium is to obtain high quality service at fair market prices.

6.3.1 Observations

6.3.1.1 Operator procurement

The Consortium negotiated a standardized contract with the OCSTA, and signed standardized separate contracts with each individual bus operator. The standardized contract was negotiated and agreed to before September 1, 2010 but the individual contracts were not executed until after the start of the school year. These contracts were not competitively procured.

The Consortium is in the midst of developing documents for the competitive procurement of bus operators; its documents are based on the Ministry's templates. The Consortium has established key activities, timelines and responsibilities for the implementation of a competitive procurement process. The Consortium has informed its operators of its intent to move towards competitive procurement, including the use of pilot projects in the 2012 / 2013 school year.

6.3.1.2 Special needs transportation

Special needs transportation for the OCSB is negotiated with a single operator; this arrangement is expected to end in the 2011 / 2012 school year and OSTA is expected to assume responsibility for the administration of all Member Boards' small vehicle services and to move towards competitively procuring special needs transportation.

6.3.2 Recommendations

6.3.2.1 Continue efforts to implement a competitive process for the procurement of all transportation services, including special needs transportation

While it is recognized that the Consortium is moving towards competitive procurement for its operator contracts, at the time of the E&E Review, the Consortium had not used a competitive process for the procurement of its operators. We encourage the Consortium to continue working towards competitive procurement for the procurement of bus operator services because it can help the Consortium achieve the best value for its money as operators would be competing to provide the required service levels.

It is also recognized that the Consortium has informed its operators that it will be moving towards competitive procurement and we encourage the Consortium to formally communicate key dates and implementation timelines to operators.

A competitive process can be used with certain safeguards in place to protect the standards of service. The Consortium should continue to enforce limits placed on the volume of business any one operator can hold to avoid a monopoly situation. Additionally, in evaluating the successful proponents, cost should not be the overriding factor as that will encourage low cost proponents to enter the market while not necessarily ensuring that the same or improved levels of service are being provided. Local market conditions should be considered at all points in the development and evaluation of any service proposal. For example, local operators can be encouraged to participate in this process by placing a value on having local experience as part of the evaluation criteria; however, this specific criterion for local experience should also not be an overriding factor in the proposal evaluation process.

6.4 Contract Management

Contracting practices do not end after a contract is signed. Ongoing monitoring of compliance and performance of contracted service is an important and valuable practice to enhance service levels and ensure that contractors are providing the contracted levels of service. Effective contract management practices focus on four key areas:

- Administrative contract compliance to ensure that operators meet the requirements set out in the contract;
- Operator facility and maintenance audits to ensure that operators keep their facilities and vehicles in line with the standards outlined in the contract;
- Service and safety monitoring to ensure that the on the road performance of drivers and operators reflects the expectations set out in the contract; and
- Performance monitoring to track the overall performance of operators over time.

6.4.1 Observations

The Consortium has recently developed a process to ensure operator compliance with the terms of the operator contracts; the basis for this compliance program is not delineated in the operator contracts.

6.4.1.1 Bus operator administrative, contract compliance, facility and maintenance monitoring

The Consortium has developed evaluation forms for bus operator administrative, contract compliance, facility and maintenance monitoring. While the Consortium has developed evaluation forms, it has not developed a policy on implementing and regularly conducting these evaluations.

The evaluation form addresses: pre-inspection / maintenance, operational management, communication, driver training, document control, and safety. The pre-inspection portion of the evaluation will take place at the Consortium site and the remainder of the evaluation will take place at the operator's premises, during which the Consortium representative can review documents and inspect the premises as needed. Operators will generally be provided with notice of these visits; no visits have yet been conducted.

6.4.1.2 Operator safety and service monitoring

The Consortium has developed evaluation forms for monitoring operators' on-the-road performance, with a focus on evaluating: mileage, adherence to directions, vehicle condition (exterior and interior), driver habits, and student behaviour. While the Consortium has developed evaluation forms, it has not developed a policy on implementing and regularly conducting these evaluations – however, it expects to conduct both unannounced and announced reviews, and to conduct a minimum of 25 route audits per year, in each of its four zones.

No complete evaluations have been conducted yet, although the Consortium has audited driver mileage and adherence to directions – however, these audits have been informal and in response to complaints.

6.4.1.3 Performance monitoring

The Consortium communicates with its operators on items such as driver confidentiality forms, insurance coverage, and fleet age, among others. The Consortium reviews operator performance with respect to late buses and incidents and may follow up on issues related to contract compliance (e.g., use of proper vehicles, mileage, provision of services, etc). Issues are documented and communicated to the operators, and then followed up on as needed.

6.4.2 Recommendations

6.4.2.1 Bus operator administrative, contract compliance, facility and maintenance monitoring

The Consortium has recently developed a program for the monitoring of operators' administrative responsibilities, contract compliance, and facility and maintenance standards; however, it has not formalized a policy on implementing and regularly conducting these evaluations. It is recommended that the monitoring be conducted on a random but regular basis and should be supported with appropriate documentation summarizing the results. It is further recommended that the policy also address the follow-up activities required of the Consortium, as this type of follow-up reporting can aid in the evaluation of operators and be used as evidence of proper implementation of the stated monitoring policies. Efforts should be made to evaluate all of the operators that serve the Consortium. The results of these evaluations should be tracked over time by the Consortium and communicated back to the operators to assist them in managing their drivers, facilities and improving overall service quality.

6.4.2.2 Enhance the operator safety and service monitoring process

The Consortium has recently developed a program for the monitoring of operators' on-the-road performance through route audits, and is in the process of developing a policy on the implementation and execution of these evaluations. It is recommended that the Consortium continue with the implementation of this program, and focus on evaluating a broad and representative sample of all of the operators that serve the Consortium. The Consortium should also strive to audit at least ten percent of its routes annually, to ensure that it is able to achieve a broad and representative sample. Results of the route audits should be documented by the Consortium and be communicated back to the operators to assist them in managing their drivers and improving overall service quality.

6.5 Results of E&E Review

The process by which the Consortium negotiates, structures, and manages its contracts for transportation services has been assessed as **Moderate-Low**. While the Consortium uses standardized contracts, it should ensure that all of its contracts are ratified and executed before the start of service.

Significant changes are required in order to increase the clarity and effectiveness of the Consortium's contracting practices. The primary areas for improvement include the modification of its contracts to incorporate relevant clauses and complete driver safety training, the implementation of competitive procurement processes for all transportation services, and the implementation of a comprehensive, documented, governance approved process for ensuring operator compliance and on-the-road safety and service monitoring.

7 Funding Adjustment

The Ministry has asked the E&E Review Team to apply their Funding Adjustment Formula to each Board that was subject to an E&E Review in Phase 4. Note that where Boards are incurring transportation expenses in multiple Consortium sites, the Board's adjustment will be prorated for the portion attributed to the consortium under review. For example, if 90% of Board A's expenditures are attributed to consortium A, and 10% of expenditures are attributed to consortium B, the funding adjustment resulting from consortium A's review will be applied to 90% of Board A's deficit or surplus position.

The Ministry's funding formula is as follows:

Table 7: Funding Adjustment Formula

Overall Rating	Effect on deficit Board ¹⁰	Effect on surplus Board
High	Reduce the gap by 100% (i.e. eliminate the gap)	No in-year funding impact; out-year changes are to be determined
Moderate-High	Reduce the gap by 90%	Same as above
Moderate	Reduce the gap by 60%	Same as above
Moderate-Low	Reduce the gap by 0%	Same as above
Low	Reduce the gap by 0%	Same as above

Based on the Ministry's funding formula, in conjunction with our E&E assessment of the Consortium, it is anticipated that the following funding adjustments will be made for each Board:

Ottawa-Carleton District School Board

Item	
2009-2010 Transportation Surplus (Deficit)	\$(3,474,929)
% of Surplus (Deficit) attributed to the Consortium	100%
Revised amount to be assessed under the Consortium	\$(3,474,929)
E&E Rating	Moderate-Low
Funding Adjustment based on Ministry's Funding Adjustment Formula	0%
2010-2011 Total Funding adjustment	Nil

Ottawa Catholic School Board

Item	
2009-2010 Transportation Surplus (Deficit)	\$1,221,328
% of Surplus (Deficit) attributed to the Consortium	100%
Revised amount to be assessed under the Consortium	\$1,221,328
E&E Rating	Moderate-Low
Funding Adjustment based on Ministry's Funding Adjustment Formula	0%
2010-2011 Total Funding adjustment	Nil

(Numbers will be finalized once regulatory approval has been obtained.)

¹⁰ This refers to Boards that have a deficit/surplus on student transportation

Appendix 1: Glossary of Terms

Act	Education Act
Assessment Guide	The guide prepared by the E&E Review Team and the Ministry of Education which will be used as the basis for determining the overall effectiveness and efficiency of each Consortium
Common Practice	Refers to a set of planning parameters that have been reported by Ontario school boards as the most commonly adopted planning policies and practices. These are used as references in the assessment of the relative level of service and efficiency.
Consortium, the; or OSTA	Ottawa Student Transportation Authority
Deloitte	Deloitte & Touche LLP (Canada)
Driver	Refers to bus Drivers, see also operators
E&E	Effectiveness and Efficiency
E&E Review Team	As defined in Section 1.1.5
E&E Reviews	As defined in Section 1.1.4
Effective	Having an intended or expected effect; the ability to deliver intended service
Efficient	Performing or functioning in the best possible manner with the least waste of time and effort; the ability to achieve cost savings without compromising safety
Evaluation Framework	The document, titled “Evaluation Framework for Ottawa Student Transportation Authority” which supports the E&E Review Team’s Assessment; this document is not a public document
Funding Adjustment Formula	As described in Section 1.3.5
HR	Human Resources
IT	Information Technology
JK/SK	Junior Kindergarten/Senior Kindergarten
KPI	Key Performance Indicators
Management Consultants	As defined in Section 1.1.5
Memo	Memorandum 2006: SB13, dated July 11 issued by the Ministry
Ministry	The Ministry of Education of Ontario
MPS	Management Partnership Services Inc., the routing consultant, as defined in Section 1.1.5
MTO	The Ministry of Transportation of Ontario

operators	Refers to companies that operate school buses, boats or taxis and the individuals who run those companies. In some instances, an operator may also be a Driver.
Overall Rating	As Defined in Section 3.2 of the Evaluation Framework
OCDSB	Ottawa-Carleton District School Board
OCSB	Ottawa Catholic School Board.
Member Boards, School Boards or Boards	The school boards that have participated as full partners or members in the Consortium; the OCDSB and the OCSB
Provincial Schools	English Language Provincial and Demonstration Schools
Rating	The E&E Assessment score on a scale of High to Low, see Section 1.3.4
Report	The report prepared by the E&E Review Team for each Consortium that has undergone an E&E Review (i.e. this document)
Separate Legal Entity	Incorporation
Type A school bus	A smaller asset, typically with a 20 passenger capacity, oftentimes used to transport special needs students

Appendix 2: Financial Review – by School Board

Ottawa-Carleton District School Board

Item	2006-2007	2007-2008	2008-2009	2009-2010 ¹¹	2010-2011 ¹²
Allocation ¹¹	\$31,098,116	\$31,171,991	\$32,478,689	\$32,559,391	\$33,706,167
Expenditure ¹²	\$31,449,928	\$31,529,477	\$33,872,020	\$36,034,320	\$37,221,896
Transportation Surplus (Deficit)	\$(351,812)	\$(357,486)	\$(1,393,331)	\$(3,474,929)	\$(3,515,729)

Ottawa Catholic School Board

Item	2006-2007	2007-2008	2008-2009	2009-2010 ¹¹	2010-2011 ¹²
Allocation ¹³	\$22,298,340	\$22,743,771	\$23,496,460	\$23,615,978	\$23,511,737
Expenditure ¹⁴	\$23,323,742	\$24,159,818	\$23,412,978	\$22,394,650	\$23,743,000
Transportation Surplus (Deficit)	\$(1,025,402)	\$(1,416,047)	\$83,482	\$1,221,328	\$(231,263)

¹¹ 2009-2010 allocations and expenditures based on Ministry data – Financials for 2009-2010

¹² 2010-2011 allocations and expenditures based on Ministry data – Revised Estimates for 2010-2011

¹³ Allocation based on Ministry data – includes all grant allocations for transportation (Section 9 00008C, Section 13 00006C, Section 13 00012C)

¹⁴ Expenditure based on Ministry data - taken from Data Form D:730C (Adjusted expenditures for compliance) - 212C (Other Revenues) + Schedule 10:620C (Transportation Amortization)

Appendix 3: Document List

1. AA 1 OSTA MAP.pdf
2. AA1 2009 - 2010 route summary with times.xls
3. AA1 3.1.1.1 operator negotiations.pdf
4. AA1 additional signatures.pdf
5. AA1 audit letter DOC112210.pdf
6. AA1 Board Resolution ammended May 31,2010.pdf
7. AA1 Draft OSTA Freedom of Information and Protection of Privacy.doc
8. AA1 Edulog Addendum.pdf
9. AA1 Edulog Licence and Maintenance Agreement.pdf
10. AA1 Final Audited FS Aug 31 2010.PDF
11. AA1 hazard review SCH_BND.xls
12. AA1 HR Forms.pdf
13. AA1 inclement weather meeting and charts.pdf
14. AA1 instruction to bus operators re T1 & T3.pdf
15. AA1 KPI's additional info collected and shared with the OSTA Board of Directors.pdf
16. AA1 KPI's info collected and shared with OSTA Board of directors.xls
17. AA1 Letters Patent.pdf
18. AA1 minutes June 17 08.pdf
19. AA1 minutes of settlement.pdf
20. AA1 more sample minutes staff meetings.pdf
21. AA1 number of vehicles-routes.pdf
22. AA1 OCSB bell time policyDOC112910.pdf
23. AA1 OCSB Board motion re shared & Tiered BusingDOC112410.pdf
24. AA1 operators on TRACS.pdf
25. AA1 policy & Procedure list.pdf
26. AA1 Provincial Schools Contract rates etc.pdf
27. AA1 Purchase of Services Agreement-HR_OSTA.pdf
28. AA1 ratified contracts memo.pdf
29. AA1 Representation vote.pdf
30. AA1 Route Planning Factors.pdf
31. AA1 sample communication.pdf

32. AA1 sample electronic change notice.pdf
33. AA1 sample forms.pdf
34. AA1 sample of review of variances.pdf
35. AA1 Team buiding.pdf
36. AK1 C7b Insurance Document Checklist.doc
37. C 6a T7 Public Transit Service.doc
38. C 8 b RFP_10R09_Large_School_bus_And_Micro_School_Bus_final.doc
39. c1 a large bus contract 10 11.pdf
40. c1 a large bus contract T 3 10 11.pdf
41. C1 a large bus.pdf
42. C1 a small vehicle contract.doc
43. C1 c Payments & Conditions large bus.doc
44. C1 c small vehicles T2.pdf
45. C1a skyservice.pdf
46. C1b LARGE BUSES AND SMALL VEHICLES - SIGNED CONTRACTS.PDF
47. C3a integrated bus contractors 10.11.pdf
48. C3c parent driver.pdf
49. C5 Age of fleet 2009 - 10.xls
50. C6a Delivery-Return of OC Transpo Passes-New.doc
51. C6a Requisition for OC Passes and Tickets-New.doc
52. C6a Transit pass procedure.doc
53. C8 a page 20 Workplan_OSTA.doc
54. C9a route audit.pdf
55. C9b OSTA Facility Audit Review.pdf
56. C9b route audit form.pdf
57. C9f Stock.pdf
58. CF 9d First Student Napean.pdf
59. CF 9D First Student WC.pdf
60. CM 10a Minutes Mar 8 10.pdf
61. CM 10b goals objectives.doc
62. CM 10b goals objectives.doc
63. CM 11b Time report.pdf
64. CM 11b Time report.pdf

65. CM 11c stakeholders.pdf
66. CM 11c stakeholders.pdf
67. CM 12b CM 12 a Bus Company Confidentiality.pdf
68. CM 13a F6 Financial Reporting.doc
69. CM 13a F8 Issuance of Audited Financial Statements.doc
70. CM 13b.pdf
71. CM 14 c.pdf
72. CM 14a F3 OSTA Budget.doc
73. CM 14aG13 OSTA Signing Officers.doc
74. CM 14b.pdf
75. Cm 14c Change of Address to SuppliersV2.doc
76. CM 14c F9 Levels of Auth.DOC
77. CM 14f.pdf
78. CM 1b By-Laws-Revised May 31 10.doc
79. CM 1b Operating Agreement-Clean Copy.doc
80. CM 1c COMMUNICATION PROTOCOL.pdf
81. CM 1c COMMUNICATION PROTOCOL.pdf
82. CM 1c G4 OSTA Complaints and Concerns.doc
83. CM 1c G4 OSTA Complaints and Concerns.doc
84. CM 2b Annual Meeting Jan 18 10.pdf
85. CM 2b minutes Aug 30 10.pdf
86. CM 2b minutes Feb 25 10.pdf
87. CM 2b minutes Jan 18 10.pdf
88. CM 2b Minutes June 14 10.pdf
89. CM 2b Minutes Mar 8 10.pdf
90. CM 2b Minutes May 31 10.pdf
91. CM 2b minutes Nov 9 09.pdf
92. CM 2b minutes Oct 19 09.pdf
93. CM 2b minutes Sept 28 09.pdf
94. CM 2c G 11 Policy Statements and Decisions of the Board.DOC
95. CM 2c G2 Board of Directors Meetings.DOC
96. CM 2c G8 OSTA In-Camera Meetings.doc
97. CM 2c G9 OSTA Media Relations.doc

98. CM 4 4.2-Cost Sharing Agreement.doc
99. CM 6 Purchase of Services- IT support.doc
100. Cm 6 transit agreement Contract0001.pdf
101. CM 6.pdf
102. cm 7a re-evaluate insurance.pdf
103. cm 7a re-evaluate insurance.pdf
104. CM 9a H2 Criminal Reference Checks.doc
105. CM 9a H2 Criminal Reference Checks.doc
106. CM 9E.pdf
107. CM 9E.pdf
108. CM10a strategic direction.pdf
109. CM10a strategic direction.pdf
110. CM11b.pdf
111. CM11b.pdf
112. CM12a Boards Policy Student Info.pdf
113. CM12a Boards Policy Student Info.pdf
114. CM14e.pdf
115. CM1a.pdf
116. CM2a Board of Directors.pdf
117. CM2a OSTA org chart.pdf
118. CM2b minutes Apl 26 10.pdf
119. CM2b minutes Sept 27 10.pdf
120. Cm6 agreement STS.pdf
121. CM7b JV 1020 Renewal 2010.pdf
122. CM9b OSTA non-affiliated group template_ Perf App Input Form.doc
123. CM9b OSTA non-affiliated group template_ Perf App Input Form.doc
124. CM9f communicate goals, objectives to staff.pdf
125. CM9f communicate goals, objectives to staff.pdf
126. minutes staff meeting.pdf
127. OC transit review sample.pdf
128. PP 1 Cancellation Procedures.pdf
129. PP 1 T4 Breakfast Programs.doc
130. PP 1 T6 Life threatening conditions.DOC

131. pp 5 Parent and Rider Information.pdf
132. PP1 Draft T18 Eligibility Distances.doc
133. PP1 Life Threatening Medical Form.pdf
134. PP1 T 1 Access to Empty Seats on School Buses.doc
135. PP1 T 13 Student Discipline on Contract Vehicles.doc
136. PP1 T 15 Service Animals.doc
137. PP1 T 17 Weighted Loading Capacity for School Buses.doc
138. PP1 T1 Application form.pdf
139. PP1 T10 Stakeholder Responsibilities.doc
140. PP1 T11 Stop Locations.doc
141. PP1 T12 Student Bus Monitors.doc
142. PP1 T15 Service animals sample letter.pdf
143. PP1 T16 Vehicle Idling.doc
144. PP1 T2 Adult Passengers on Contract Vehicles.doc
145. PP1 T3 Alcohol Tobacco Firearms.doc
146. PP1 T5 Cancellation of Transportation Services.doc
147. PP1 T7 Public Transit Service.doc
148. PP1 T8 Reporting of Accidents.doc
149. PP1 T9 School Bus Safety.doc
150. PP2 route planning check list.pdf
151. PP2 Transportation Efficiency Planning Schedule.doc
152. PP3 Route Philosophy.pdf
153. PP5 -Bus Safety brochure - FINAL.pdf
154. RT 1 T14 Transportation Services.doc
155. RT 2 - Introduction to Route Change Notices.pdf
156. Rt 4 TRACS Manual 03.09.pdf
157. RT 4 Web Query Manual.pdf
158. Rt 5 August School memo 2010.pdf
159. RT 5 TRACS - Courtesy Transportation Tool.pdf
160. Rt5 Bus Delays.doc
161. sample OC Transit compare.pdf

Appendix 4: Common Practices

		JK/SK	Gr. 1 – 3	Gr. 4 - 12
Home to School Distance				
Common Practice		0.8 km	1.2 km	3.2 km
Policy -	OCDSB	0.8 km	1.6 km	1.6 km 4 – 6 3.0 km 7 – 8 3.0 km 9 – 12 outside UTA
Policy -	OCSB	0.8 km	1.6 km	1.6 km 4 – 8 3.2 km 9 - 12
Home to Bus Stop Distance				
Common Practice		0.5 km	0.8 km	0.8 km
Policy -	OCDSB	0.8 km	0.8 km	0.8 km
Policy -	OCSB	0.5 km	0.8 km	0.8 km
Arrival Window				
Common Practice		18	18	25
Policy -	OCDSB	15	15	15
Policy -	OCSB	15	15	15
Departure Window				
Common Practice		16	16	18
Policy -	OCDSB	15	15	15
Policy -	OCSB	15	15	15
Earliest Pick Up Time				
Common Practice		6:30	6:30	6:00
Policy -	OCDSB	[6:07 AM is the earliest pick-up time in the database]		
Policy -	OCSB			
Latest Drop Off Time				
Common Practice		5:30	5:30	6:00
Policy -	OCDSB	[5:59 PM is the latest drop-off time in the database]		
Policy -	OCSB			
Maximum Ride Time				
Common Practice		75	75	90
Procedure -	OCDSB	60	60	60
Procedure -	OCSB	60	90	90
Seated Students Per Vehicle		JK/SK	Gr. 1 - 6	GR. 9 - 12
Common Practice		69	69	52
Procedure -	OCDSB	72	72	48
Procedure -	OCSB	72	72	48

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