

## Project Close Out Summary

1. Final Cleaning and Inspection
2. Testing and Certification
3. Demonstration of Systems and Equipment
4. Inspections by Authorities Having Jurisdiction
5. O&M Manuals and As Built Drawings
6. Spare Parts and Maintenance Materials
7. Substantial Performance
8. Facilities Handover
9. Payments at Substantial Performance
10. Final Completion
11. Payments at Final Completion
12. Warranty Period and Procedures

## 1. Final Cleaning and Inspection

Area	Contractor's Inspection (Completed)	Consultant's Inspection (Completed)	Substantial Performance (Completed)	Final Completion (Completed)
Classroom Wings				
Centre Core				
Gym Wing				
Common Areas				
Service Rooms				
Building Exterior and Roof				
Site				

## 2. Acceptance Testing and Certification

Item	Reference	Complete	Consultant's Review
Drinking Water Analysis			
Sheet Air/Vapour Barrier – Manufacturer's Certificate			
Fire Proofing – Testing Reports			
Sprayed Insulation – Quality Control Report			
Roofing – Manufacturer's Report			
Door Hardware – Supplier's Report			
Testing, Adjusting, and Balancing Systems – Preliminary – Final			
Sound Attenuation			
Vibration Isolation			
Item	Reference	Completed	Consultant Review

Sprinkler System Testing			
Boiler Start Up			
Flush and Treat Heating Water System			
Humidifier Start Up			
EMCS System			
Boiler Control System			
Dust Collector			
Sprinkler System – to requirements of Fire Marshall			
Electrical Installations – to requirements of NSP			
Electrical Distribution			
Lighting System – Light Levels			
Fire Alarm System			
P.A. System			
Assistive Listening System			
Intrusion Alarm System			
Multi-Media System			
Voice / Data System			
Service Entrance Board – Coordination Study – Commissioning			
Structured Wiring			
NSTIR – IAQ Baseline Testing			

**3. Demonstration and Verification of Systems and Equipment**

<b>System</b>	<b>For Consultant's Verification (Completed)</b>	<b>For Maintenance Staff (Completed)</b>	<b>For NSTIR – FPT (Completed)</b>
Hydraulic Elevators			
Wheelchair Lift			
Educational Equipment: – CNC Router			
Kitchen Equipment			
Dust Collector			
Door Hardware			
Operable Partitions			
Plumbing Systems			
Boilers			
Heating Systems			
Ventilation Systems			
Control Systems			
Electrical Distribution			
Lighting Systems			
Emergency Lighting			
Public Address Systems			
Assistive Care Alarm			
Intrusion Alarm System			
Telephone System			
Fire Alarm System			
Structured Wiring			
Cable TV			

**4. Inspection by AHJ's**

<b>System</b>	<b>Authority Having Jurisdiction</b>	<b>Completed</b>
Hydraulic Elevator	Nova Scotia Department of Labour	
Wheelchair Lift	Nova Scotia Department of Labour	
Review of Facility by Local Fire Department		
Review of Facility by Fire Marshall	Nova Scotia Department of Labour – Fire Marshall	
Sprinkler System	Nova Scotia Department of Labour – Fire Marshall	
Electrical Service	Nova Scotia Power	
Cafeteria Kitchen	Nova Scotia Department of Agriculture	

## 5. Project Record Documents

<b>Item</b>	<b>Consultant Approval of Draft</b>	<b>Consultant Approval of Final</b>	<b>Handover to School Board</b>
Operating and Maintenance Manuals (2 copies) <ul style="list-style-type: none"> <li>• Equipment and Systems</li> <li>• Material and Finishes</li> <li>• Food Service</li> <li>• Warranty and Bonds</li> </ul>			
As-Built Record Documents <ul style="list-style-type: none"> <li>• Drawings</li> <li>• Specifications</li> <li>• Addenda</li> <li>• Change Orders and Site Instructions</li> <li>• Shop Drawings and Samples</li> <li>• Field Test Reports</li> <li>• Inspection Certificates</li> <li>• Manufacturer’s Certificates</li> </ul>			
Framed As-Built Control Diagrams			
<b>Item</b>	<b>Consultant Approval of Draft</b>	<b>Consultant Approval of Final</b>	<b>Handover to School Board</b>

Framed Single Line Electrical Drawings			
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## 6. Spare Parts and Maintenance Materials

Description	Reference	Consultant Verification	Handover to School Board
Finish Hardware – Wrenches			
Ceramic Wall			
Ceramic Floor Tile			
Acoustic Ceiling Tiles			
Vinyl Tile			
Windows – Allen Keys – Spare Handles			
Tech Ed – Maintenance Tools for Equipment			
Gym Equipment – Keys and handles for backboards – Wrenches and nets			
Mechanical – General – List of Spare Parts			
Mechanical – General – Special Tools			
Sprinkler – Spare Parts, Tools and Cabinet			
HVAC water treatment system – Test Equipment			
Fans – Spare Parts			
Fire Dampers – Spare Fusible Links			
AHU's – Spare Filters and Spare Parts			
Description	Reference	Consultant Verification	Handover to School Board

Humidifiers – Spare Parts and Evaporator Material			
Exhaust Fans – Spare Parts			
Grilles and Diffusers – Keys for Adjustment			
Filters and Filter Gauges – Spare Parts			
Replace Filters at Handover			
Spare Filters			
Spare Fuses			
Spare Lamps			
Fire Alarm – Spare Glass Rods			
MCC – Spare Parts			
Portable Shot Clocks			
PA System Components			
Light Dimming Panel			

## 7. Substantial Performance Documents

<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
Certificate of Substantial Performance	Contractor and Consultant	
Deficiency Lists	Consultant and NSTIR	
NSP Final Inspection Report	Contractor	
Certificate of Verification of Fire Alarm System	Contractor	
Certificate from Dept of Labour for verification of elevator(s)	Contractor	
Certificate from Fire Marshall's office for final inspection of sprinkler system	Contractor	
<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
Boiler Test Reports	Contractor	

Air Balance Reports	Contractor	
Structured Wiring	Contractor	
Drinking Water	Contractor	
P.A. System	Contractor	
Telephone System	Contractor	
Intrusion Alarm System	Contractor	
Air Testing (Pre and Post Occupancy)	NSTIR	

**8. Facility Handover**

<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
NSTIR letter to Contractor	NSTIR	
NSTIR letter to School Board	NSTIR	
Master Key: <ul style="list-style-type: none"> <li>• From Contractor to NSTIR</li> <li>• From NSTIR to School Board</li> </ul>	Contractor NSTIR	
Key and Key Control	Contractor	
NSP Account Transfer from Contractor to School Board	Contractor and School Board	
Insurance	Contractor and School Board	

**9. Payments at Substantial Performance**

<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
Certificate for Payment for amounts due including release of Hold back	Contractor and Consultant	

**10. Final Completion**



<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
Certificate of Completion	Contractor and Consultant	
Signed Off Deficiency Lists from Substantial Performance	Contractor and Consultant	
List of Remaining Deficiencies	Consultant	
Final Acceptance	NSTIR	

#### **11. Payments at Final Completion**

<b>Item</b>	<b>Responsible</b>	<b>Date Completed</b>
Final Certificate for Payment	Contractor and Consultant	
List of Remaining Deficiencies	Consultant	
As Built Drawings	Contractor and Consultant	
Performance Bonds <ul style="list-style-type: none"> <li>• For one year after handover</li> </ul>	Contractor	
Liability Insurance <ul style="list-style-type: none"> <li>• For one year after handover</li> </ul>	Contractor	
Written One Year Guarantee	Contractor	
Extended Warranties	Contractor	
Certificate from Workers' Compensation Board	Contractor	
Maintenance Bonds	Contractor	
Spare Parts and Maintenance Materials	Contractor	

#### **12. Warranty Period and Procedures**

Item	Reference	Date Completed
Commencement Date <ul style="list-style-type: none"> <li>• Date of Substantial Performance</li> </ul>		
Warranty Notice process		
Extended Warranties: <ul style="list-style-type: none"> <li>• Hydraulic Seeding - 1 year after acceptance</li> <li>• Sodding - 1 year after acceptance</li> <li>• Trees and Scrubs - 2 years after acceptance</li> <li>• Metal Cladding - 2 additional years</li> <li>• EPDM Roofing - 9 additional years</li> <li>• Aluminum Doors - 1 additional year</li> <li>• Vinyl Windows -5 yrs on workmanship and materials 10 years on seals</li> <li>• Aluminum Skylights - 5 years</li> <li>• Refrigerator and Freezer Compressors - 5 additional years</li> <li>• EMCS - 2 year warranty</li> <li>• Structural Wiring - 15 years</li> <li>• Lighting Ballasts - 5 years</li> <li>• Emergency Light Batteries - 10 years</li> </ul>		
Maintenance Periods: <ul style="list-style-type: none"> <li>• Hydraulic Seeding - 1 year</li> <li>• Sodding - 1 year</li> <li>• Trees and Shrubs - 2 years</li> <li>• Wheelchair lift - 1 year</li> <li>• Water Treatment Services - 1 year</li> <li>• EMCS - 2 year service contract and “on line” monitoring</li> <li>• Fire Alarm - 1 year maintenance</li> <li>• Fire Alarm - 1 year monitoring</li> <li>• Security System - 1 year monitoring</li> <li>• TV system - 1 year maintenance</li> </ul>		
1 <sup>st</sup> Quarter Meeting		
2 <sup>nd</sup> Quarter Meeting		
3 <sup>rd</sup> Quarter Meeting		
4 <sup>th</sup> Quarter Meeting		