



## UPPER GRAND DISTRICT SCHOOL BOARD

2008 05 27  
CP: 08-04  
Issued: 2008 05 27

Memo To: Martha Rogers, Director of Education  
From: Paul Scinocca, Capital Projects Manager  
Re: Island Lake Public School,  
2 Classroom Environmental Pack  
Project Approval Report

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**Report Classification: DECISION**

### **Background:**

At the November 27<sup>th</sup>, 2007 meeting of the Upper Grand District School Board the following motions were approved, THAT:

- (a) "the report entitled, "Island Lake Public School - Primary Class Size Building Project Report, 2 Classroom Environmental Pack" (CP:07-21) dated November 27, 2007 be received,
- (b) the 'Island Lake Public School - Primary Class Size Building Project Report, 2 Classroom Environmental Pack' attached as Appendix B to report CP"07-21 be approved, and
- (c) staff be instructed to develop a concept design without a building committee."

Since that time, Board staff, in conjunction with several outside resources, have reviewed several building, heating and energy options, developed a concept, and prepared and closed a Request for Proposal from proponents to construct the building. Because of the nature of this project, staff chose to implement the project using a Design Build project delivery model. In this case, the design team including the architect, was assembled by the proponent and the costs were included in the proponent's projected budget.

The Request for Proposal was sent out directly to three straw-bale construction companies in Southern Ontario and was posted on the Bidingo website. The tender closed May 8<sup>th</sup> at 2:00 pm. One tender was received from Evolve Builders Group Inc. Their Elemental Budget Estimate for this project is attached in Appendix A. The Concept Drawings are also attached in Appendix A.

**Issue:**

To consider the Project Approval Report for the Island Lake Public School, 2 Classroom Environmental Pack and to approve the award of the Design-Build Contract.

**Recommendations:**

1. (a) THAT the report entitled "Island Lake Public School, 2 Classroom Environmental Pack, Project Approval Report, dated May 27<sup>th</sup>, 2008, CP: 08-04 be received.
- (b) THAT the Project Approval Report for the Island Lake Public School, 2 Classroom Environmental Pack project, including the Project Budget of \$679,859.83 as outlined in Appendix A of CP:08-04, be approved.
- (c) THAT the Design-Build Contract for the Island Lake Public School, 2 Classroom Environmental Pack, building project be awarded to Evolve Builders Group Inc.

**Rationale:**

1. A Project Approval Report, as required by Policy 309 is attached as Appendix A.
2. To demonstrate the Board's commitment to the environment and environmental issues, the plan for this project is to construct on a small scale a freestanding structure which is heated, ventilated and serviced using green technology which will demonstrate and educate students about environmental systems. The building is designed to be thermally efficient (straw bale construction), energy efficient (solar power, wind power and heat exchanger) and environmentally responsible incorporating conservation technology (water conservation and use of recycled building components as appropriate).
3. The Ministry is supporting the reduction of Primary Class Sizes and is providing capital to support these programs.
4. The Project Budget (Appendix A) is based on the Budget estimate submitted by Evolve Builders Group Inc. The Project Budget exceeds the Target Budget (Appendix B) by approximately \$17,000.00.
5. Identified prices are submitted by the proponent and are included in Appendix A. Changes can be made during the detailed design to reduce the costs if required.

# Appendix A

## ISLAND LAKE PUBLIC SCHOOL

### 2 Classroom Environmental Pack

### Project Approval Report

*Capital Projects Report: CP-08-03  
May 27, 2008*

Contents:

- \* *Scope Drawings & Specifications (from Request for Proposal)*
- \* *Proponent's Elemental Estimate*
- \* *Identified Prices*
- \* *Project Budget*
- \* *Concept Drawings*

## ENVIRO POD - ~~APPENDIX D~~

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### REQUEST FOR PROPOSAL

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Apr. 17, 2008

Island Lake Public School,  
50 Oak Ridge Dr., Orangeville

#### Intentions

This building will be a pilot demonstration project – a renewable energy and environmental showpiece possibly incorporating energy efficient components, passive solar techniques, high levels of thermal insulation, wind turbine and photovoltaic electrical generation, rain water harvesting, natural lighting, energy efficient light fixtures, living wall and low consumption plumbing fixtures.

The building will also be used in the elementary school curriculum as a teaching tool for students using visible operating systems, metering and monitoring of all energy and consumption for educational purposes. Ports to view construction and systems through applied finishes will be provided where practical (into wall cavities, roof, ceilings, through floors, into equipment,...)

This project is an opportunity for the Board to explore these and other technologies for similar projects at other school sites and for pupils of the Upper Grand District School Board to learn environmental concepts to take to their homes.

Shafts and chases may be provided for future alterations, inspection, repairs and maintenance. Service piping, conduit may be exposed and surface mounted.

The building will not be substantially different in appearance or classroom layout from standard schools recently constructed by the Upper Grand District School Board.

The following proposal contains suggested materials, construction, assemblies and technologies as preliminary suggestions. Through detailed design and consultation with the successful firm and team of consultants, there may be additional or different options explored and included in the building. We have given alternates as suggestions for increased performance. Note and specify alternates carried where applicable.

Proponents are encouraged to suggest additional features in their proposals provided they meet the intent of the project.

The building is not intended to be LEED certified or Net-Zero.

The final selection of construction, materials and systems is dependent on schedule, cost and suitability to meet the intentions of the project. There may be choices and compromises made to free funds for more appropriate technologies.

See attached copies of concept site location plan, floor plan, elevations and sections. These are offered as an illustrated example of the size and design – they not intended to represent the final layout and detail.

Mechanical, electrical and energy systems are to be located in the seminar room and above the hall, vestibule and washroom ceilings. Equipment to be located and spaced for easy viewing by students.

#### Proposed Schedule

Receipt of proposals	May 8
Selection process	May 8 - 22
Design	May 22 – June 5
Detailed Working Drawings & Specs	June 16 - July 31
Tendering	Aug. 5 – 19
Construction	Sept. 2 – Dec. 19

#### Qualifications

The successful design/builder will have demonstrated experience in similar sustainable construction and energy efficient technologies.

References are requested and a list of related projects.

Resumes for architectural and engineering consultants for structural, mechanical, electrical and energy systems are to be included in the submission.

#### Submission Requirements

Include examples of work, preliminary budget, schedule, recommended additional technologies for consideration.

#### Construction Practices

All efforts will be made to follow best environmental and health practices by all workers during construction. Including reduced energy consumption, friendly products, construction waste and re-use by separating into re-cyclables (as provided by municipality), return packaging to suppliers

#### Commissioning

Builder, consultants, suppliers, sub-trades and equipment providers are to schedule time to set up and balance their systems, coordinate and demonstrate operation and maintenance to UGDSB staff

#### Sitework

Service connections to existing school separate metering required.

Strip topsoil and stockpile for re-spreading.

Finish subgrade to provide positive grading away from building. Set floor level to provide minimum 2% slope away from exterior walls for a distance of 10 m.

Provide landscaping, topsoil, grass, plants, walks, driveway access.

Bike racks to be provided by UGDSB.

### Foundations

Base: poured concrete floating slab with perimeter thickening and parged R12 rigid insulation exterior to avoid thermal bridging.

Alternate 1: 14" Durisol foundation walls and 12" stem wall above floor slab as base for straw bale walls plastered to match straw bale walls.

Alternate 2: 24" deep insulated concrete form bond beam

### Floor

Base: vinyl tile on concrete slab

Alternate 1: exposed aggregate polished concrete

Alternate 2: slate or ceramic tile on concrete slab

Sub base to be granular stone and/or wood/clay chips and vapour barrier.

Underslab weeper drainage system

### Exterior Walls

Base: non load-bearing straw bale as specified below

Alternate: loadbearing 14" Durisol block with maximum rock wool insert.

### Fire and Smoke

- Fire Resistance Index of not greater than 10FSI
- Smoke Density Index of not greater than 350 SDI
- Fire rating of 2 hours

### Load Capacity

- Vertical load capacity of minimum 6,150 lbs/lin ft without internal or external framing

### Dimensions

- Finished wall thickness not to be greater than 16" measured outside to outside

### General Materials

- 90% of materials to be sourced within 100km
- Materials to have low embodied energy
- All materials to be zero VOC

### Finish

- Paint finish on interior and exterior both to be vapour permeable at a rate of not less than 77.5 perms
- Paint finish on interior and exterior to be washable, mildew resistant, non-combustible, mineral sourced and fungicide-free

### Experience

- Straw bale wall system installer to have minimum 5 years direct experience
- Straw bale wall system installer to be qualified under the Tarion New Home Warranty program
- Straw bale wall system installer to be a member of the Ontario Straw Bale Building Coalition for a minimum of 3 years

## STRAW BALES

1. Bale Types:
  - a. Straw bales to be of any variety of locally available grain stalks including but not limited to wheat, rye, barley or oat. Due to its oily nature, flax stalk is not considered suitable.
  - b. Straw bales to be bound by two polypropylene strings
  - c. When placed on their edge, the width of the bales should nominally be 14"
2. Bale Density:

Straw bales to have either:

  - a) A dry density of five pounds per cubic foot if used in a load-bearing fashion or,
  - b) Sufficient density that when lifting the bale by both strings at the midpoint, there is four inches or less of a space between the bale and the string, if used in a non load-bearing fashion.
3. Bale Moisture Content:
  - a) Bales that have been moistened heavily once or repeatedly will typically show grey or black areas where mold spores began proliferating. Such bales are to be discarded during construction.
  - b) Bales should have a moisture content of not greater than 20% RH when measured by an appropriately calibrated moisture meter.

## PLASTER PREPARATION

1. Plaster Mesh:
  - a. Polypropylene plaster mesh with holes measuring not greater than 1" x 1 ¼" to be installed over entire bale wall face, both interior and exterior and attached using ½" staples at all junctions with wood framing
  - b. Diamond lath/plasterer's lath or suitable polyethylene mesh to be applied over areas where plaster is to span a flat subsurface such as wood or used to form curved shapes as desired
  - c. 6 mil vapour barrier to be installed at any intended point of contact between wood and plaster
2. Stitching:
  - a. Polypropylene mesh to be stitched with polypropylene baling twine at approximate 18" centres from outside-to-outside of wall

## PLASTER

1. Recipe:
  - a. Plaster to be 1:1:6 cement, lime and sand.
  - b. Sand to be well graded.
  - c. Cement-lime to be 50% Portland Type N and 50% lime, high bond
  - d. Fibre admixture of one of or combination of polyfibres or hemp fibres to be added as appropriate to minimize curing shrinkage cracks
2. Plaster to be applied to the exterior and the interior side of the bale walls and:
  - a. Applied at not less than 1" thick on average over a total of two coats;

- b. Calculated at 1 ½” for material preparation purposes (given that approximately 50% of material “keys in” to the straw bales and does not directly contribute to building out the required 1” depth;
  - c. The second coat is to be appropriate to serve as the final finish (aside from colour and waterproofing).
  - d. Finish texture to be steel trowel finish on interior and wood float finish on exterior
3. Expansion Joints
- a. Galvanized metal or aluminum expansion joints to be considered at appropriate intervals to minimize expansion/curing cracks

## EXTERIOR FINISH & WEATHER PROOFING

1. Colour:
- Colour may be applied by means of a surface coat on the cured plaster using any of:
- a. Limewash with silicate dispersion sealant
  - b. Casein paint with silicate dispersion sealant
  - c. Silicate dispersion paint
  - d. Silicate dispersion sealant only
2. Weather Proofing:
- Must be applied to the exterior surface of the cured plaster using either of:
- a. Silicate dispersion paint
  - b. Silicate dispersion sealant either over raw plaster or over limewash or casein paint as listed above

### Wall Framing

Wind screen to be wood frame and clad with 19 mm Mg board

### Interior Walls

Base: concrete block painted

Alternate 1: Durisol

Alternate 2: Magnesium Oxide (Mg) board [www.magnesiacore.com](http://www.magnesiacore.com) on wood framing.

Walls to extend to underside of roof or ceilings for sound separation between classrooms and washrooms/seminar room.

### Roof

Rows of 7” high continuous snow guard as shown on plans

Corrugated steel roofing, strapping, membrane roofing material

SIP panels R38

Underside of panels to be painted white

Roof trusses to be exposed on interior painted white

### Exterior Doors

Insulated hollow metal. Half double sealed glass in doors.

Best quality weatherseals. Commercial grade hardware.

### Interior Doors

Base: solid core wood doors and hollow metal frames

Alternate 1: re-claimed solid wood doors and frames preferred. Low VOC wood panel doors and hollow metal frames otherwise. Half glass light in doors to classrooms, seminar and vestibule.

### Windows

Base: coloured fibreglass frames, double sealed argon filled low 'E' glass with plastic spacers

Alternate: triple glazing in lieu of double

Double hung operable sections with insect screens on interior for high and low level ventilation

High clerestorey windows where noted to be operated

Base: manually by poles/cables

Alternate: by electric motors remotely with humidity/temperature sensors.

### Finishes

Preferred materials will not require site applied finishes

Zero VOC paints and finishes. Oil finishes for wood no stain

### Accessories

Chalkboards, tackboards to be supplied by Board installed by builder to standard Board layout and details

### Millwork

Teacher's cupboard, counters, shelving and base units to be supplied by Board and installed by builder to standard Board layout and details

### Rain Water Harvesting System

Separate price for this system

Rainwater harvesting system to provide a minimum of:

Seasonal Operation

- Continuous operation to toilets
- Allowance for seasonal diversion of harvested rainwater and flushing, cleaning and emptying of storage tank(s)
- Allowance for winter operation and capture of snow melt

Source Water

- Primary source water to be captured rain and snow from available roof surface areas
- Make-up water to be provided via an air-gap from the city mains

Disinfection

- Coarse materials of ¼" or larger are to be diverted upstream from storage tank(s)
- Primary disinfection of harvested source water to be physical or biological as necessary to be suitable for toilet and/or urinal flushing, per OBC 2006

No chemical disinfection to be permitted

Cisterns located above washroom and/or vestibule ceilings for gravity flow from eavestrough and to gravity feed toilets. Overflow downpipe to grade.

### Plumbing Fixtures

Dual flush toilets (3 & 6 litre), low flow faucets.

Cold water supply to classroom sinks, hot and cold to washroom sinks.

Standard wall mounted porcelain drinking fountain as shown

### Energy Modelling

The preliminary design of this building was modelled and the model was used to estimate appropriate sizing for the mechanical equipment. Once the design has been finalized, the building shall be modelled in Hot2000 or equivalent software to determine it's energy performance as measured in the EnerGuide Rating System and to verify or adjust the sizing of the mechanical equipment as appropriate.

### Heating System

Radiant heat with flat plate radiators located on exterior walls. Insulated supply and return piping may be exposed above 8'-0" on walls. Below 8'-0" hot pipes to be protected by protective insulated jacketing.

Base: instantaneous gas fired water heater located in seminar room

Alternative: Electric Thermal Storage: Comfort Plus Hydronic, Model 5120 or Model 5130

This contract includes verifying that the equipment is sized properly for the anticipated heating needs of the actual final design.

### Ventilation System

A heat recovery ventilation system will be provided for conditions when natural ventilation from operating windows (clerestorey and low level) is not feasible (coldest days and unoccupied times). The system to have variable speed settings to adjust for occupancy conditions.

VanEE Model 6 LC located in the Seminar area.

Separate price: living wall tied into the fresh air duct.

Washrooms, seminar and classrooms will be tied into this system.

Separate price: HEPA filtration system to be installed.

This contract includes verifying that the equipment is sized properly for the anticipated ventilation needs of the actual final design.

### Electrical

Separate service from existing school

Reverse meter tied to wind turbine

Standard Offer Programme meter for PV

Wiring exposed in conduit

### Lighting

Base: T8 fluorescent lamps mounted on roof trusses for backup to natural lighting from clerestorey windows

Alternate: strip LED fixtures

All rooms to have natural lighting (classrooms, hall, seminar, vestibule and washrooms)

Timer switches for washroom light fixtures

Exterior security lighting below canopy and floodlight on southeast corner

### Photovoltaic Solar Panels

Total 15 Sanyo 195W PV panels with a combined rating of 2925 W (~3kW) to be installed on the south face of the roof. Panels dimensions are 1.2 m with a total area of 18 m. Panels to have a minimum efficiency of 16.5%. Include procurement, installation, commissioning, permitting and all other services reasonably required to ensure a complete and successful installation.

Alternative systems with comparable performance may be considered.

### Wind Turbine Generation

Separate price for this system

Savonius R1 – 2kW system vertical axis wind turbine manufactured by Helix Wind in California rated at 2 kW with cut in speed of 2.8 m/s. Approximate dimensions are 1.2 m w x 1.8 m h weight approx. 140 kg. Turbine to be roof or high wall mounted and elevated a minimum height of 4.5 m above the ground. Final height to be determined depending on surrounding obstructions. Grid connection to be provided as part of this contract at 110 VAC through a 60 Hz inverter. Include procurement, installation, commissioning, permitting and all other services reasonably required to ensure a complete and successful installation.

Alternative systems with comparable performance may be considered.

### Controls, Metering & Monitoring

Carry an allowance of \$20,000.00 for controls.

Sophisticated controls systems for adjustment and educational benefits.

Automated controls for windows, humidistats, thermometer sensors will be placed Programmable anticipatory thermostats to be installed to pre-condition spaces and setback for unoccupied modes. Will be established during detailed design.

Sophisticated systems for monitoring, diagnosis and educational benefits on all energy systems (water, electrical, PV, wind), humidity and thermostats to monitor temperature at many locations in the rooms. Metering will be tied back to control system(s) to enable recording of observed data for further analysis.

Reverse metering of hydro will be provided

### Living Wall

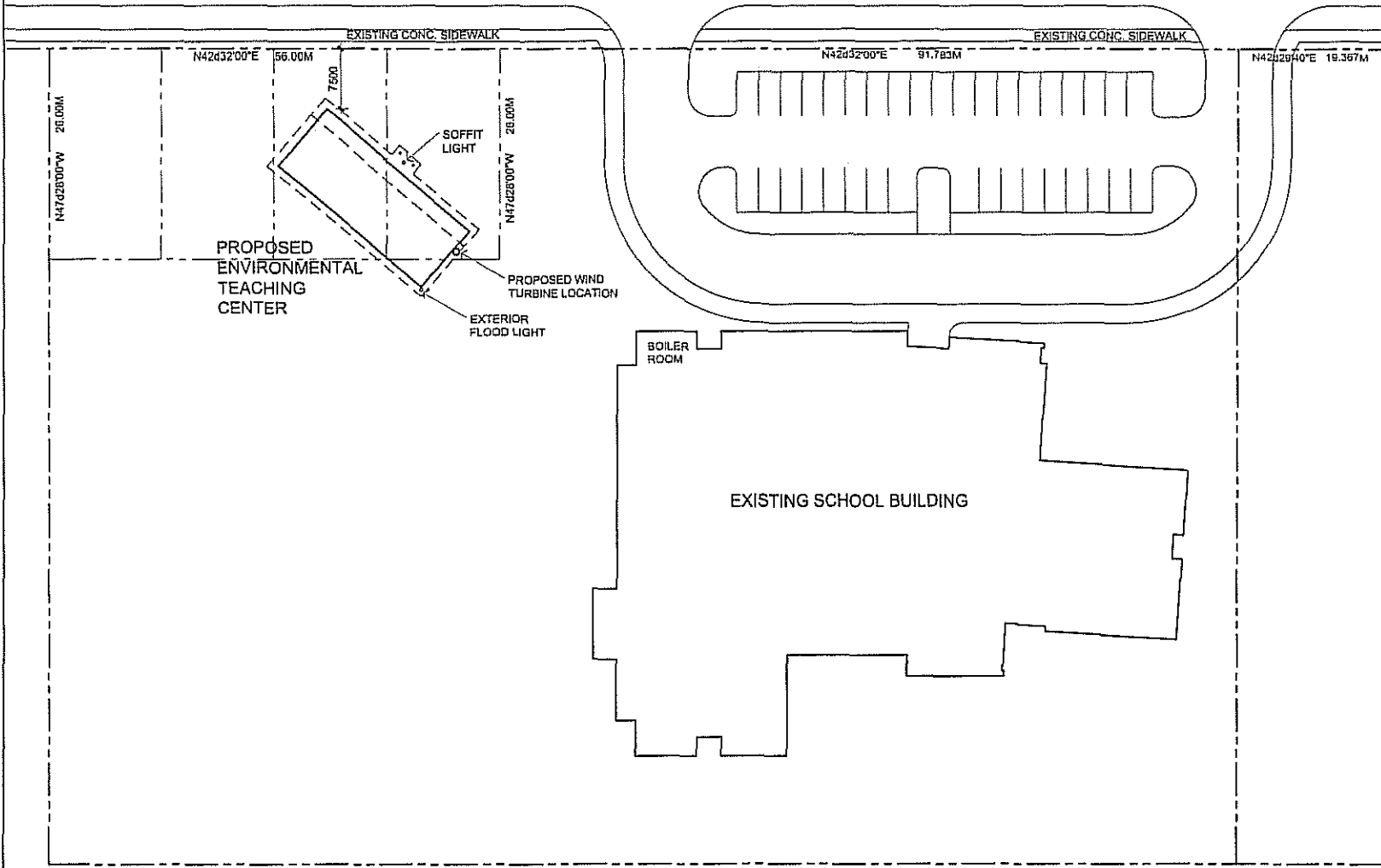
Separate price for this system.


A living wall demonstration system located in the seminar room in front of the windows  
[www.naturaire.com](http://www.naturaire.com)

OAK RIDGE DRIVE



NORTH



NO.	DATE	REVISION
 <b>J. DAVID McAULEY ARCHITECT INC.</b> 615 S. 22nd St. Fort Worth, TX 76104 817-335-1234 Email: jma@jma-arch.com		
PROJECT <b>NEW BUILDING</b> <b>ENVIRONMENTAL TEACHING CENTER, ISLAND LAKE P.S.</b> 60 Oak Ridge Drive Orangeville, Ont.		
DRAWING NAME <b>SITE PLAN</b>		
PLOT DATE Aug. 2009	DRAWN BY AJ	
SCALE 1:500	PROJECT MANAGER DM	
FILE SITE PLAN.DWG	DRAWING NO. 0804 - A1	
<small>LAST SAVED: Aug 24, 2009 1:07:41 AM</small>		

Item Code #	EVOLVE BUILDERS GROUP INC PROJECT SUMMARY Island Lake Estimate	Total, All Work incl Allowances
<b>ADVANCE ITEMS, MOBILIZATION &amp; PLANNING</b>		
000	Architect, structural eng., HVAC Calculations, Working Drawings	\$ 50,410.00
010	Permits, Development charges, other fees	\$ -
<b>MOBILIZATION, PLANNING &amp; SITE MANAGEMENT</b>		
030	Insurance, Power, Security & Safety, Waste Disposal & General, Site Clean up, Utility Locates, Johnny-on-the-spot, seasonal heating fuel	\$ 9,185.34
999	Project Management	\$ 18,084.14
<b>EXCAVATION, FILL &amp; LANDSCAPE</b>		
202	Excavation, general fill, rough re-grading & final grading	\$ 13,463.92
211	Basic Top Dressing & seeding	\$ 2,434.00
<b>FOUNDATION &amp; SLAB</b>		
220	Concrete Slab including under slab aggregate, insulation & reinforcem't	\$ 21,485.28
232	Frost Wall foundation complete with insulated skirt & Weeper	\$ 9,685.03
<b>FRAMING</b>		
300	Bale wall framing, interior wall framing, interior block wall laying	\$ 30,012.90
320	Truss Framing, soffit return framing, SIP panels, strapping, bldg wrap	\$ 52,252.82
<b>WINDOWS &amp; EXTERIOR DOORS</b>		
340	Windows, exterior doors and hardware	\$ 16,074.19
<b>STRAW BALE WALLS</b>		
402	Straw Infill, plaster prep	\$ 26,139.94
403	Plastering	\$ 27,810.15
<b>INTERIOR &amp; FINISHES</b>		
501	Partition Wall Boarding using "Mg Board"	\$ 5,371.84
510	Painting, Oiling, Sealing – Interior wall & ceiling surfaces	\$ 7,192.68
520	Flooring & Floor Finishes	\$ 11,121.84
540	Doors, Trim & Hardware	\$ 2,908.02
560	Installation of Owner supplied cabinets, blackboards etc	\$ 3,166.72
<b>DRAFT PROOFING &amp; INSULATION</b>		
550	Draft Proofing & Insulation – clerestory wall	\$ 1,576.06

Item Code #	EVOLVE BUILDERS GROUP INC PROJECT SUMMARY Island Lake Estimate	Total, All Work incl Allowances
<b>SERVICES</b>		
600	Electrical Wiring & Lighting Fixtures	\$ 23,612.76
630	Plumbing & Plumbing Fixtures	\$ 8,360.79
640	Utility Hook Ups by/to provider	\$ 12,769.37
650	Primary Heat & Hot Water Production and Ventilation	\$ 24,002.00
670	Photovoltaic, wind turbine and ancillary equipment	\$ 42,732.00
680	Rainwater Harvesting System	\$ 9,984.00
690	Solid & Waste Water System	\$ 6,240.00
<b>ROOFING</b>		
710	Finish Roofing including snow guards	\$ 23,713.46
712	Soffit, Fascia & Eavestrough including gutter guards	\$ 12,505.70
<b>EXTERIOR FINISHES</b>		
730	Wall Finishes, Exterior – clerestory wall	\$ 2,195.47
733	Painting, Oiling, Staining – Exterior bale wall	\$ 3,519.56
<b>MISCELLANEOUS</b>		
800+	Educational Components, Building Control & Monitoring	\$ 22,180.00

**Subtotal, All Components: \$ 500,190.00**  
**GST: \$ 25,009.50**  
**Total: \$ 525,199.50**

ISLAND LAKE ENVIRO POD

IDENTIFIED PRICES - APPENDIX D

Design	General Requirements	Detail	Estimated Totals
	Wind Turbine	Helix Wind Savonius R1, rated 2kW, incl ancillary equip.	\$ 20,000
	Solar Panel System	Sanyo PV panels, combined rated 2925W, incl ancillary equip.	\$ 12,500
	Cistern	RWH including cistern, coarse filtration, make of line, clean out, overflow	\$ 9,600
	Various Miscellaneous alt. energy components	Incl. rectifier, dumpload, batteries (limited), inverter	\$ 3,500
	Other	Further details/specs on intended usage required for pricing	TBD

COMPANY NAME: EVOLVE BUILDERS GROUP INC

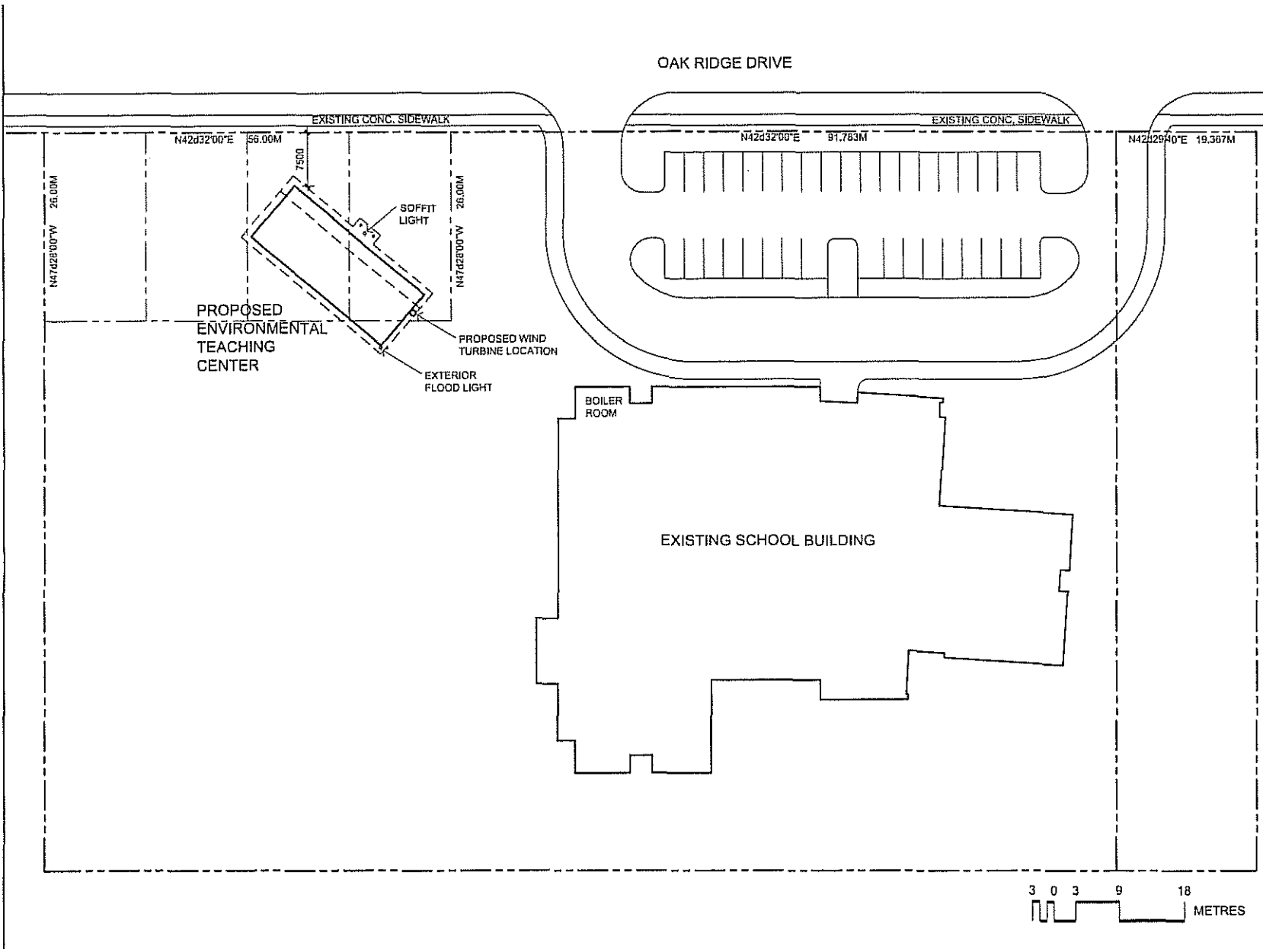
**ISLAND LAKE PUBLIC SCHOOL**  
**2 Classroom Environmental Pac**

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**Project Budget - Expenditures**

May 2008

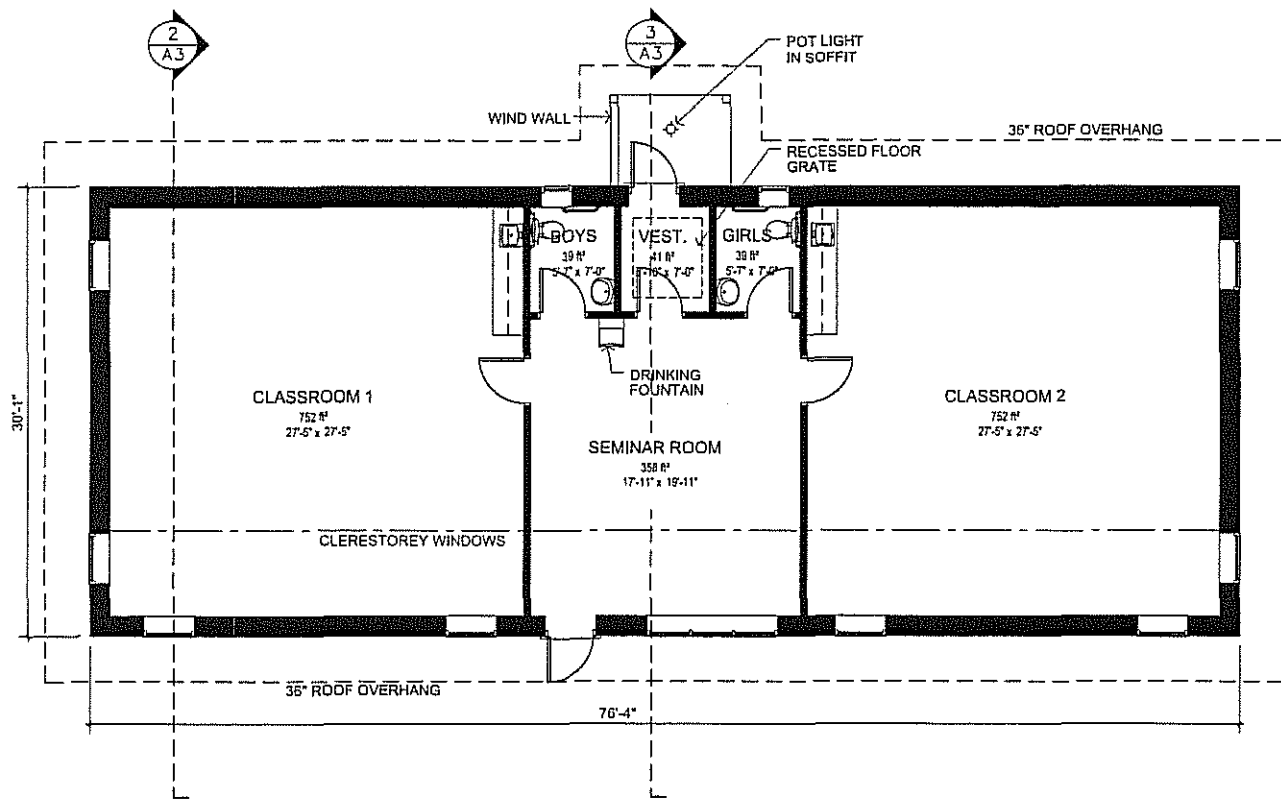
			<b>Project Budget</b>
Construction/Site Development	Construction Estimate	\$500,190.00	
	Build. Permit	\$10,000.00	
	Site Contingency	\$40,000.00	
	GST	\$9,169.83	\$559,359.83
Architects/Consultants	Architect	Inc above	
	Other Consultants	\$20,000.00	
	Survey/Testing	\$10,000.00	
	Controls	\$20,000.00	
	GST	\$500.00	\$50,500.00
Project Co-ordination		\$15,000.00	\$15,000.00
Furniture and Equipment	F&E Total	\$5,000.00	\$5,000.00
Subtotal			\$629,859.83
Project Contingency			\$50,000.00
	<b>Total</b>		<b>\$679,859.83</b>



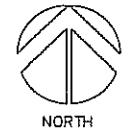
NORTH

NO.	DATE	REVISION
 <p><b>J. DAVID MCAULEY ARCHITECT INC.</b>            2145 E. 25th St.            Palm Springs, CA 92262            760.325.1111            www.jdmcauley.com</p>		
PROJECT: <b>NEW BUILDING</b> <b>ENVIRONMENTAL TEACHING CENTER, ISLAND LAKE P.S.</b> 50 Oak Ridge Drive Orangeville, Ont.		
DRAWING NAME: <b>SITE PLAN</b>		
PLOI DATE: Apr, 2008	DRAWN BY: AJ	
SCALE: 1:500	PROJECT MANAGER: DM	
TIT: SITE PLANNING	DRAWING NO.: 0804 - A1	

LAST SAVED: AM 3:08 - 19/04/08



1 FLOOR PLAN  
 SCALE 1/8" = 1'-0"  
 AREA = 2,296 SF

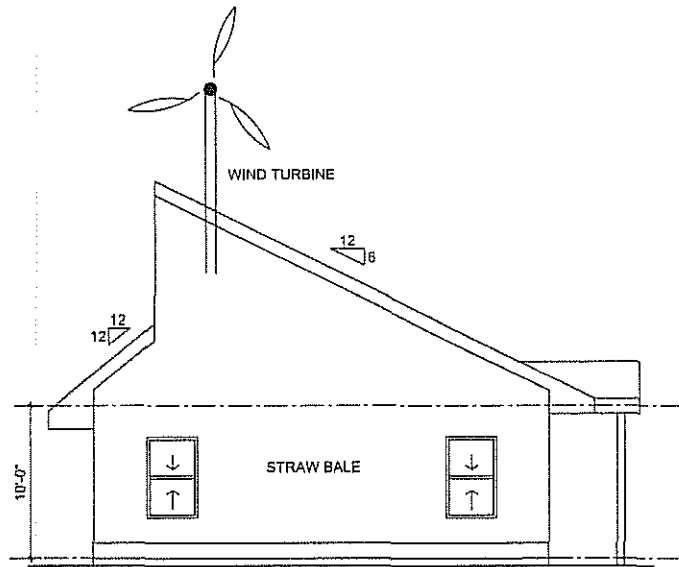


**J. DAVID McAULEY ARCHITECT INC.**  
 1150 BROADVIEW AVE.  
 SUITE 100  
 SCARBOROUGH, ONT. M1B 4Y6  
 TEL: 416-291-1111  
 FAX: 416-291-1112  
 WWW.JDMACARCHITECT.COM

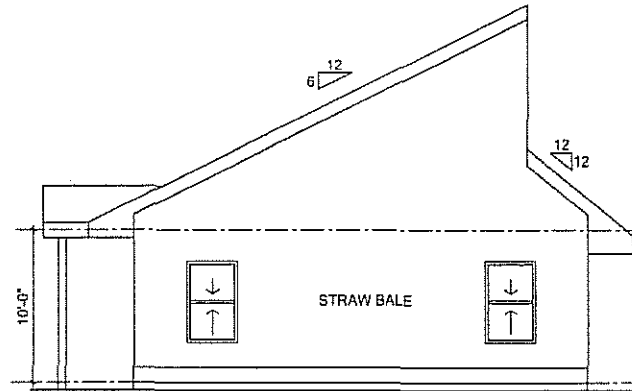
PROJECT:  
 NEW BUILDING  
**ENVIRONMENTAL TEACHING CENTER, ISLAND LAKE P.S.**  
 20 Oak Ridge Drive Orangeville, Ont.

DRAWING NAME:  
**FLOOR PLAN**

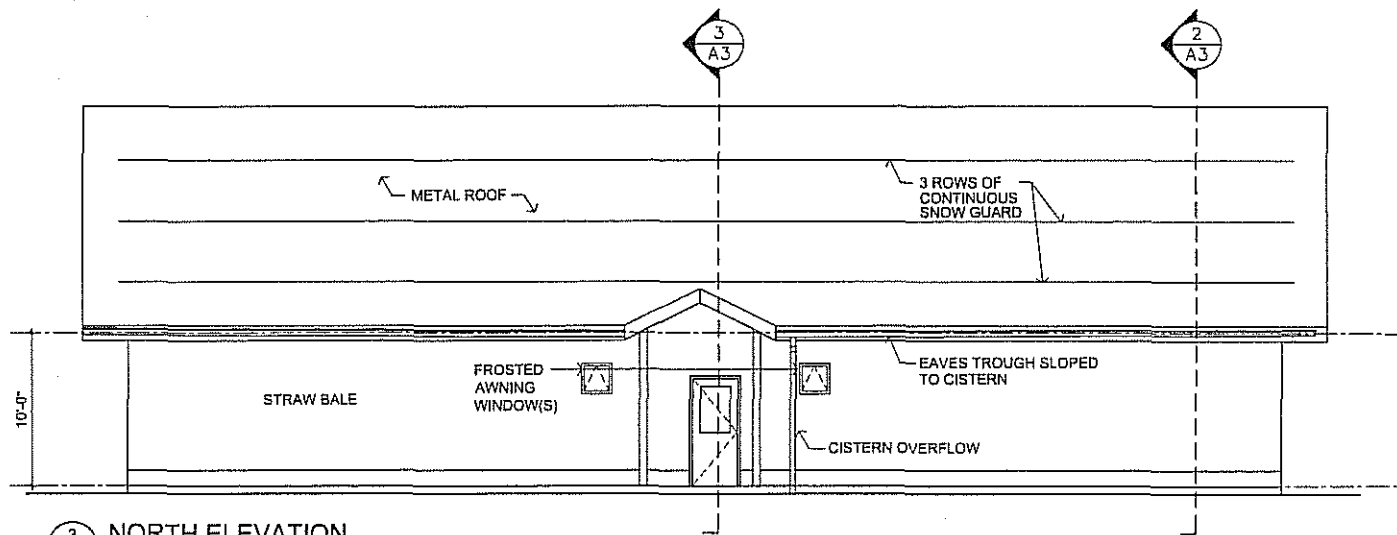
PLS (DATE)	APR. 2008	DRAWN BY	AD
SCALE	1/8" = 1'-0"	PROJECT MANAGER	DLJ
FILE	FLOOR PLAN.DWG	DRAWING NO.	0804 - A2



1 EAST ELEVATION  
A4 SCALE: 1/8" = 1'-0"



2 WEST ELEVATIONS  
A4 SCALE: 1/8" = 1'-0"



3 NORTH ELEVATION  
A4 SCALE: 1/8" = 1'-0"

REV. DATE REVISION

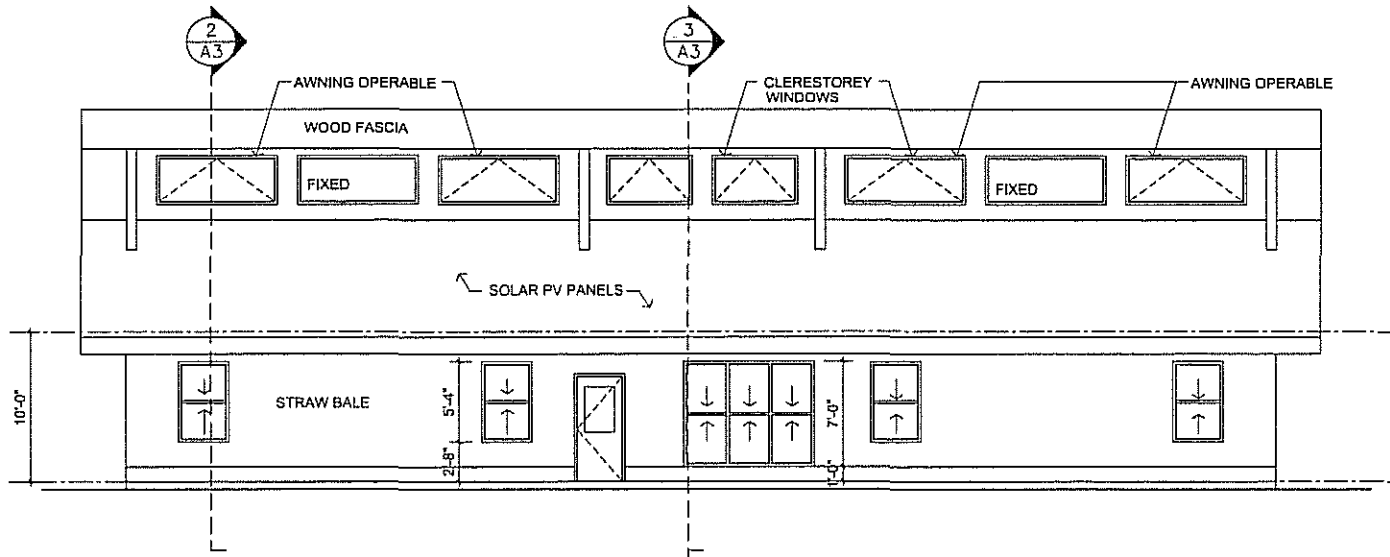


PROJECT  
NEW BUILDING  
ENVIRONMENTAL TEACHING  
CENTER, ISLAND LAKE P.S.  
50 Oak Ridge Drive Orange, CA, OR, CA

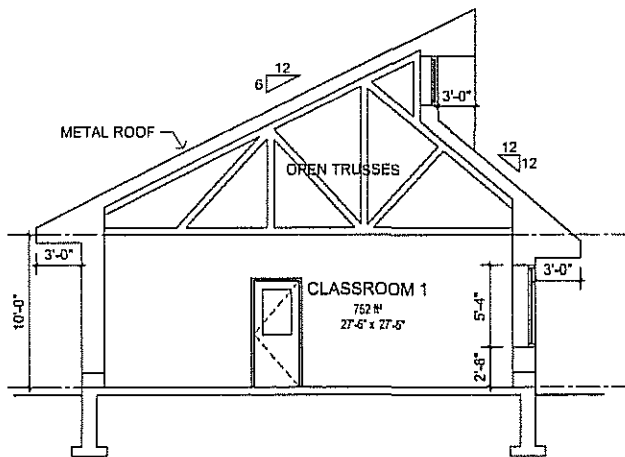
DRAWING NAME  
ELEVATIONS

PROJECT NO.	REV. NO.	DRAWN BY	DATE
		AJ	
SCALE	PROJECT NAME/NO.	DATE	
1/8" = 1'-0"	EM		
FILE	DRAWING NO.	DATE	
FLOOR PLAN.DWG	0804		A4

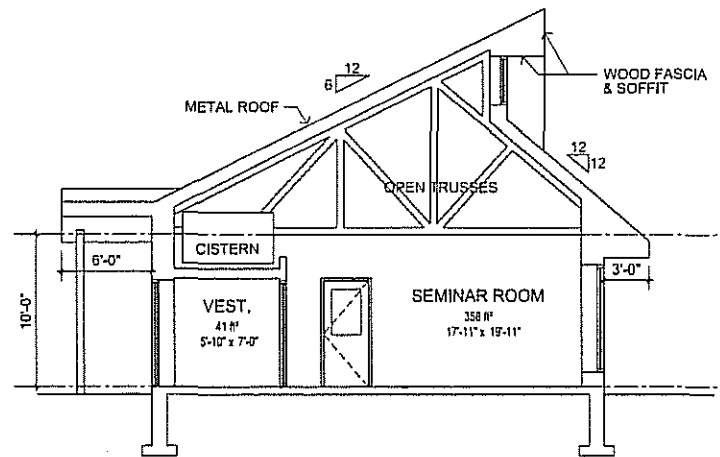
LAST REVISED: 08/04/04




1 SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



2 SECTION 1  
SCALE: 1/8" = 1'-0"



3 SECTION 2  
SCALE: 1/8" = 1'-0"

NO.	DATE	REVISION
 <b>J. DAVID MCAULEY ARCHITECT INC.</b> 2115 HUNTERS LANE, SUITE 100 ORANGEVILLE, ONTARIO L9M 1A8		
PROJECT: NEW BUILDING <b>ENVIRONMENTAL TEACHING CENTER, ISLAND LAKE P.S.</b> 50 Oak Ridge Drive Orangeville, Ont.		
DRAWING NAME: <b>ELEVATION &amp; SECTIONS</b>		
PLOT DATE: App. Date	DESIGNED BY: AJ	
SCALE: 1/8" = 1'-0"	PROJECT MANAGER: DM	
FILE: FLOOR PLAN (DWG)	DRAWING NO.: 0804 - A3	

# Appendix B

## ISLAND LAKE PUBLIC SCHOOL

### 2 Classroom Environmental Pack

### Project Approval Report

*Capital Projects Report: CP-08-03  
May 27, 2008*

Contents:

\* Target Budget

ISLAND LAKE PUBLIC SCHOOL  
2 Classroom Environmental Pac

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**Target Budget - Expenditures**

November 2007

			<b>Project Budget</b>
Construction/Site Development	Construction Estimate	\$475,000.00	
	Build. Permit	\$4,750.00	
	Site Contingency	\$23,750.00	
	GST	\$10,070.00	\$513,570.00
Architects/Consultants	Architect	\$55,292.28	
	Other Consultants	\$15,000.00	
	Survey/Testing	\$7,500.00	
	GST	\$1,555.85	\$79,348.13
Project Co-ordination		\$15,000.00	\$15,000.00
Furniture and Equipment	F&E Total	\$5,000.00	\$5,000.00
Subtotal			\$612,918.13
Project Contingency			\$50,000.00
	<b>Total</b>		<b>\$662,918.13</b>