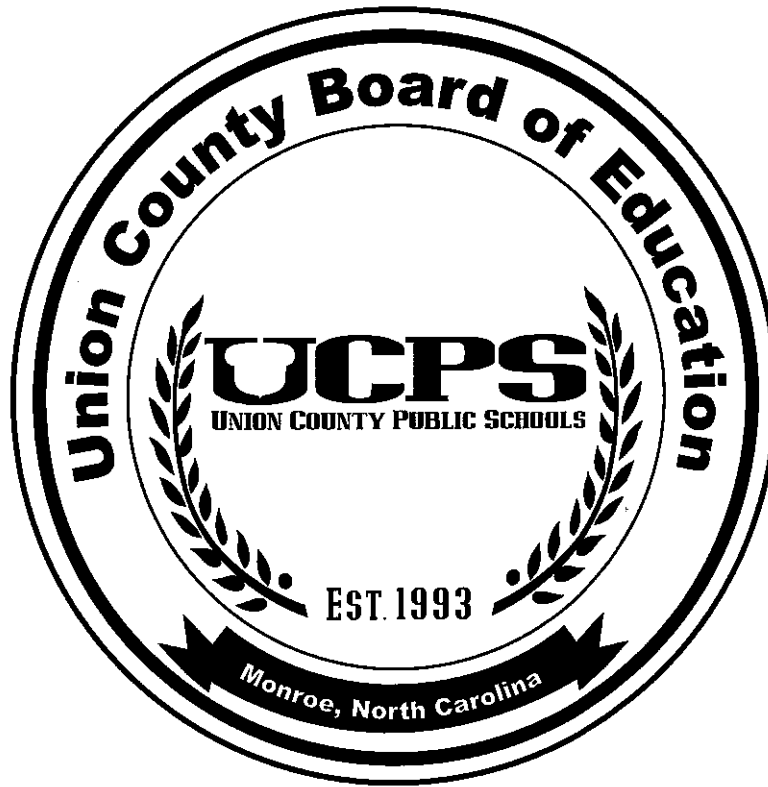


UNION COUNTY PUBLIC SCHOOLS



Greenhouse

2-0000077

Van Wingerden Greenhouse

THE UNION COUNTY BOARD OF EDUCATION
Greenhouse Materials

This Contract for Services (this "Contract") is made and entered into this 30th day of May, 2012 between The Union County Board of Education, located in Monroe, North Carolina (the "UCBOE") and Van Wingerden Greenhouse Co., located at 4078 Haywood Road, Mills River, NC 28759 (the "Contractor").

Supplier agrees to provide Union County Public Schools with Greenhouse building materials. The Contractor agrees to follow all federal regulations associated with the bid and contract.

For and in consideration of the mutual promises set forth in this Contract, the parties do mutually agree as follows:

1. Obligations of Contractor. The Contractor agrees to provide services and/or goods as follows:
 - Provide materials needed to build a WS-28 model gutter connected greenhouse structure.
 - Provide a lockable covered trailer to be used as storage of materials on site.
 - Delivery date will be established with UCPS Project Coordinator listed in item 3 of this document
 - Agrees to all specifications and provisions listed on Attachment B.

2. Obligations of UCBOE. The UCBOE agrees:
 - a. To pay: approximately \$246,505.00 including materials and sales tax,
 - b. Provide specific delivery dates.
 - c. Provide project schedule, escalation procedures and project management guidelines.

3. Project Coordinator. Robert Filter, Interim Director - CTE, 407 N Main Street, Monroe, NC 28112, is designated as the Project Coordinator for the UCBOE. The Project Coordinator shall be the UCBOE's representative in connection with the Contractor's performance under this Contract. The UCBOE has complete discretion in replacing the Project Coordinator with another person of its choosing.

4. Contractor Supervisor. Richard Van Wingerden (828.891.7389), Van Wingerden Greenhouse, is designated as their Supervisor for this Contractor. The Contractor Supervisor is fully authorized to act on behalf of the Contractor in connection with this Contract.

5. Terms and Methods of Payment. The UCBOE will make payment after invoices are approved on a net 30-day basis. The UCBOE will not pay for services or materials in advance without the prior approval of the Finance Officer.

The Contractor will submit invoices according to the following payment criteria:

School Name and Address, Period Covered, Items Delivered and Installed, PO Number and the Total Amount. Invoices shall be paid after acceptance of equipment.

6. Additional Provisions. Contractor agrees to the Standard Terms and Conditions set forth as Attachment A attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, the UCBOE and the Contractor have executed this Contract on the day and year first written above.

Van Wingerden Greenhouse Company
Supplier Name


Signature of Authorized Representative Date

Contractor's Federal Identification #
[if Contract is with Organization]
27-2390050
or Social Security Number
[if Contract is with individual]

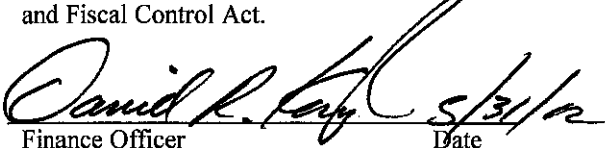
Originator/Fund Owner Date

This instrument has been pre-audited
in the manner required by the School Budget
and Fiscal Control Act.

APPROVED AS TO FORM:



~~School Board Attorney~~ 4/5/12 Date




Finance Officer 5/31/12 Date

REVIEWED BY:

Division of Insurance Date
& Risk Management

General Counsel Date

THE UNION COUNTY BOARD OF EDUCATION



Superintendent or Authorized Designee 4/5/12 Date

Print name and Title of Authorized Designee, if any:

ATTACHMENT A
STANDARD TERMS AND CONDITIONS

1. **Acceptance.** Seller's acknowledgment of the terms of this Contract constitutes an agreement to (i) all terms and conditions set forth or referenced herein, (ii) on any attachments hereto, (iii) any applicable solicitation documentation related to this Contract (including without limitation any request for proposals or invitation for bids or Seller's response thereto) that deal with the same subject matter as this Contract, and (iv) any other terms and conditions of a written agreement signed by Seller and the UCBOE that deals with the same subject matter as this Contract (collectively, the "Contract Documents"). The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Seller and UCBOE with respect to the purchase by UCBOE of the (i) goods ("Goods") and/or (ii) services provided or work performed ("Services") as described in the Contract Documents. The agreements set forth in the Contract Documents are sometimes referred to herein as the "Contract." In the event of any conflict between any terms and conditions of the Contract Documents, the terms and conditions most favorable to UCBOE shall control. No additional or supplemental provision or provisions in variance herewith that may appear in Seller's quotation, acknowledgment, invoice or in any other communication from Seller to UCBOE shall be deemed accepted by or binding on UCBOE. UCBOE hereby expressly rejects all such provisions which supplement, modify or otherwise vary from the terms of the Contract Documents, and such provisions are superseded by the terms and conditions stated in the Contract Documents, unless and until UCBOE's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by UCBOE are subject to correction.
2. **Quantities.** Shipments must equal exact amounts ordered unless otherwise agreed in writing by UCBOE. The award of a term contract neither implies nor guarantees any minimum or maximum purchases.
3. **Prices.** If Seller's price or the regular market price of any of the Goods or Services covered hereunder is lower than the price stated in the Contract Documents on the date of shipment of such Goods or Services, Seller agrees to give UCBOE the benefit of such lower price on any such Goods or Services. In no event shall Seller's price be higher than the price last quoted or last charged to UCBOE unless otherwise agreed in writing. No charges for transportation, boxing, crating, etc. are allowable unless such charges are included in the Contract Documents.
4. **Price Adjustments (term contracts only).** Any price changes, downward or upward, which might be permitted during the contract period must be general, either by reason of market change or on the part of the Seller to other customers.
 - a. **Notification:** Must be given to UCBOE in writing concerning any proposed price adjustments. Such notification shall be accompanied by a copy of manufacturer's official notice or other acceptable evidence that the change is general in nature.
 - b. **Decreases:** UCBOE shall receive full proportionate benefit immediately at any time during the contract period.
 - c. **Increases:** All prices shall be firm against any increase for 180 days from the effective date of the Contract. After this period, a request for increase may be submitted with UCBOE reserving the right to accept or reject the increase, or cancel the Contract. Such action by UCBOE shall occur not later than 15 days after the receipt by UCBOE of a properly documented request for price increase. Any increases accepted shall become effective not later than 30 days after the expiration of the original 15 days reserved to evaluate the request for increase.
5. **Invoices:** It is understood and agreed that orders will be shipped at the established Contract prices in effect on dates orders are placed. Invoicing at variance with this provision will subject the Contract to cancellation. Applicable North Carolina sales tax shall be invoiced as a separate item. Invoices shall be sent to UCBOE's accounts payable department with a copy to the UCBOE Project Coordinator.
6. **Freight on Board.** All shipments of Goods are freight on board destination unless otherwise stated in the Contract Documents.
7. **Taxes.** Any applicable taxes shall be invoiced as a separate item.
8. **Payment Terms.** Payment terms are Net 30 days after receipt of correct invoice or acceptance of Goods or Services, whichever is later.
9. **Condition and Packaging.** Unless otherwise provided by special terms and conditions or specifications, it is understood and agreed that any item offered or shipped has not been sold or used for any purpose and shall be in first class condition. All containers/packaging shall be suitable for handling, storage or shipment.
10. **Delays in Shipment.** Time and date of delivery are of the essence, except when delay is due to causes beyond Seller's reasonable control and without Seller's fault or negligence.
11. **Risk of Loss.** Seller shall have the risk of loss of and damage to the Goods subject to the Contract Documents until such Goods are delivered to the destination and accepted by UCBOE or its nominee.
12. **Rejection.** All Goods and Services shall be received subject to UCBOE's inspection. Goods or Services that are defective in workmanship or material or otherwise not in conformity with the requirements of the Contract Documents may be rejected and returned at Seller's expense or may be accepted at an appropriate reduction in price. UCBOE may require Seller to promptly replace or correct any rejected Goods or Services and, if Seller fails to promptly replace or correct such Goods or Services, UCBOE may contract with a third party to replace such Goods and Services and charge Seller the additional cost.
13. **Compliance with All Laws.** Seller warrants that all performance hereunder shall be in accordance with all applicable federal, state and local laws, regulations and orders.
14. **Warranties.** Seller warrants that all Goods and Services delivered hereunder will be free from defects in materials and workmanship and will conform strictly to the specifications, drawings, or samples specified or furnished. This warranty shall survive any inspection, delivery, acceptance or payment by UCBOE of the Goods and Services and shall run to UCBOE and any user of the Goods or Services. This express warranty is in addition to Seller's implied warranties of merchantability and fitness for a particular purpose which shall not be disclaimed. In addition to any other rights available at law or equity, UCBOE shall be

entitled to all rights and remedies provided by the Uniform Commercial Code, Chapter 25 of the North Carolina General Statutes, for breach of express warranties and implied warranties of merchantability or fitness for a particular purpose, including but not limited to consequential and incidental damages.

15. **Indemnification.** Seller shall indemnify and hold harmless UCBOE, its officers, agents, employees and assigns from and against all claims, losses, costs, damages, expenses, attorneys' fees and liability that any of them may sustain (a) arising out of Seller's failure to comply with any applicable law, ordinance, regulation, or industry standard or (b) arising directly or indirectly out of Seller's performance or lack of performance of the terms and conditions of the Contract. In the event that any Goods or Services sold and delivered or sold and performed under the Contract Documents shall be defective in any respect whatsoever, Seller shall indemnify and save harmless UCBOE, its officers, agents, employees and assigns from all loss or the payment of all sums of money by reason of all accidents, injuries or damages to persons or property that shall happen or occur in connection with the use or sale of such Goods or Services and are contributed to by said condition. In the event Seller, its employees, agents, subcontractors and or lower-tier subcontractors enter premises occupied by or under the control of UCBOE in the performance of the Contract Documents, Seller agrees that it will indemnify and hold harmless UCBOE, its officers, agents, employees and assigns, from any loss, costs, damage, expense or liability by reason of property damage or personal injury of whatsoever nature or kind arising out of, as a result of, or in connection with such entry.
16. **Insurance.** Unless such insurance requirements are waived or modified by UCBOE or Insurance and Risk Management Seller certifies that it currently has and agrees to purchase and maintain during its performance under the Contract the following insurance from one or more insurance companies acceptable to UCBOE and authorized to do business in the State of North Carolina: **Automobile** - Seller shall maintain bodily injury and property damage liability insurance covering all owned, non-owned and hired automobiles. The policy limits of such insurance shall not be less than \$1,000,000 combined single limit each person/each occurrence. **Commercial General Liability** - Seller shall maintain commercial general liability insurance that shall protect Seller from claims of bodily injury or property damage which arise from performance under the Contract. This insurance shall include coverage for contractual liability. The policy limits of such insurance shall not be less than \$1,000,000 combined single limit each occurrence/annual aggregate. **Worker's Compensation and Employers' Liability Insurance** - If applicable to Seller, Seller shall meet the statutory requirements of the State of North Carolina for worker's compensation coverage and employers' liability insurance. Seller shall also provide any other insurance or bonding specifically recommended in writing by the DIRM or required by applicable law. Certificates of such insurance shall be furnished by Seller to UCBOE and shall contain the provision that UCBOE be given 30 days' written notice of any intent to amend or terminate by either Seller or the insuring company. Failure to furnish insurance certificates or to maintain such insurance shall be a default under the Contract and shall be grounds for immediate termination of the Contract.
17. **Termination for Convenience.** UCBOE shall have the right, without assigning any reason therefore, to terminate any work under the Contract Documents, in whole or in part, at any time at its complete discretion by providing 10 days notice in writing from UCBOE to Seller. If the Contract is terminated by UCBOE in accordance with this paragraph, Seller will be paid in an amount which bears the same ratio to the total compensation as does the Goods or Services actually delivered or performed to the total originally contemplated in the Contract. UCBOE will not be liable to Seller for any costs for completed Goods, Goods in process or materials acquired or contracted for, if such costs were incurred prior to the date of this Contract.
18. **Termination for Default.** UCBOE may terminate the Contract, in whole or in part, immediately and without prior notice upon breach of the Contract by Seller. In addition to any other remedies available to UCBOE law or equity, UCBOE may procure upon such terms as UCBOE shall deem appropriate, Goods or Services substantially similar to those so terminated, in which case Seller shall be liable to UCBOE for any excess costs for such similar supplies or services and any expenses incurred in connection therewith.
19. **Contract Funding.** It is understood and agreed between Seller and UCBOE that UCBOE's obligation under the Contract is contingent upon the availability of appropriated funds from which payment for Contract purposes can be made. No legal liability on the part of UCBOE for any payment may arise until funds are made available to UCBOE's Finance Officer and until Seller receives notice of such availability. Should such funds not be appropriated or allocated, the Contract shall immediately be terminated. UCBOE shall not be liable to Seller for damages of any kind (general, special, consequential or exemplary) as a result of such termination.
20. **Accounting Procedures.** Seller shall comply with any accounting and fiscal management procedures prescribed by UCBOE to apply to the Contract. Seller shall assure such fiscal control and accounting procedures as may be necessary for proper disbursement of and accounting for all project funds.
21. **Improper Payments.** Seller shall assume all risks attendant to any improper expenditure of funds under the Contract. Seller shall refund to UCBOE any payment made pursuant to the Contract if it is subsequently determined by audit that such payment was improper under any applicable law, regulation or procedure. Seller shall make such refunds within 30 days after UCBOE notifies Seller in writing that a payment has been determined to be improper.
22. **Contract Transfer.** Seller shall not assign, subcontract or otherwise transfer any interest in the Contract without the prior written approval of UCBOE.
23. **Contract Personnel.** Seller agrees that it has, or will secure at its own expense, all personnel required to perform the services set forth in the Contract.
24. **Key Personnel.** Seller shall not substitute for key personnel assigned to the performance of the Contract without prior written approval from UCBOE Project Coordinator. "Key personnel" are defined as those individuals identified by name or title in the

Contract Documents or in written communication from Seller. "UCBOE Project Coordinator" is the individual at UCBOE responsible for administering the Contract.

25. **Contract Modifications.** The Contract may be amended only by written amendment duly executed by both UCBOE and Seller. However, minor modifications may be made by UCBOE Project Coordinator to take advantage of unforeseen opportunities that: (a) do not change the intent of the Contract or the scope of Seller's performance; (b) do not increase Seller's total compensation or method of payment; and (c) either improve the overall quality of the product or service to UCBOE without increasing the cost, or reduce the total cost of the product or service without reducing the quantity or quality. All such minor modifications to the Contract must be recorded in writing and signed by both the Project Coordinator and Seller, and placed on file with the Contract. No price adjustments will be made unless the procedure has been included in the Contract and a maximum allowable amount stipulated.
26. **Relationship of Parties.** Seller is an independent contractor and not an employee of UCBOE. The conduct and control of the work will lie solely with Seller. The Contract shall not be construed as establishing a joint venture, partnership or any principal-agent relationship for any purpose between Seller and UCBOE. Employees of Seller shall remain subject to the exclusive control and supervision of Seller, which is solely responsible for their compensation.
27. **Advertisement.** The Contract will not be used in connection with any advertising by Seller without prior written approval by UCBOE.
28. **Nondiscrimination.** During the performance of the Contract, Seller shall not discriminate against or deny the Contract's benefits to any person on the basis of sexual orientation, national origin, race, ethnic background, color, religion, gender, age or disability.
29. **Conflict of Interest.** Seller represents and warrants that no member of UCBOE or any of its employees or officers has a personal or financial interest or will benefit from the performance of the Contract or has any interest in any Contract, subcontract or other agreement related to the Contract. Seller shall not permit any member of UCBOE or any of its employees or officers to obtain a personal or financial interest or benefit from the performance of the Contract or to have any interest in any Contract, subcontract or other agreement related to the Contract, during the term of the Contract. Seller shall cause this paragraph to be included in all Contracts, subcontracts and other agreements related to the Contract.
30. **Gratuities to UCBOE.** The right of Seller to proceed may be terminated by written notice if UCBOE determines that Seller, its agent or another representative offered or gave a gratuity to an official or employee of UCBOE in violation of policies of UCBOE.
31. **Kickbacks to Seller.** Seller shall not permit any kickbacks or gratuities to be provided, directly or indirectly, to itself, its employees, subcontractors or subcontractor employees for the purpose of improperly obtaining or rewarding favorable treatment in connection with a UCBOE Contract or in connection with a subcontract relating to a UCBOE Contract. When Seller has grounds to believe that a violation of this clause may have occurred, Seller shall promptly report to UCBOE in writing the possible violation.
32. **Monitoring and Evaluation.** Seller shall cooperate with UCBOE, or with any other person or agency as directed by UCBOE, in monitoring, inspecting, auditing or investigating activities related to the Contract. Seller shall permit UCBOE to evaluate all activities conducted under the Contract. UCBOE has the right at its sole discretion to require that Seller remove any employee of Seller from UCBOE property and from performing services under the Contract following provision of notice to Seller of the reasons for UCBOE's dissatisfaction with the services of Seller's employee.
33. **Financial Responsibility.** Seller is financially solvent and able to perform under the Contract. If requested by UCBOE, Seller agrees to provide a copy of its latest audited annual financial statements or other financial statements as deemed acceptable by UCBOE's Finance Officer. In the event of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Seller, the inability of Seller to meet its debts as they become due or in the event of the appointment, with or without Seller's consent, of an assignee for the benefit of creditors or of a receiver, then UCBOE shall be entitled, at its sole option, to cancel any unfulfilled part of the Contract without any liability whatsoever.
34. **Governmental Restrictions.** In the event any governmental restrictions are imposed which necessitate alteration of the material, quality, workmanship or performance of the items offered prior to their delivery, it shall be the responsibility of the Seller to notify, in writing, the issuing purchasing office at once, indicating the specific regulation which required such alterations. UCBOE reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract.
35. **Inspection at Seller's Site.** UCBOE reserves the right to inspect, at a reasonable time, the equipment/item, plant or other facilities of a prospective contractor prior to Contract award, and during the Contract term as necessary for UCBOE determination that such equipment/item, plant or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the Contract.
36. **Confidentiality Information. Student Information.** If, during the course of Seller's performance of the Contract, Seller should obtain any information pertaining to the students' official records, Seller agrees to keep any such information confidential and to not disclose or permit to be disclosed, directly or indirectly, to any person or entity any such student information. The Contract shall not be construed by either party to constitute a waiver of or to in any manner diminish the provisions for confidentiality of students' records. Additionally, pursuant to N.C.G.S. 115C-401.1, Prohibition on the Disclosure of Information about Students, it is unlawful for a person who enters into a contract with a local board of education to sell personally identifiable information that is obtained from a student as a result of that person's performance under the Contract. **Employee Personnel Information.** If,

during the course of Seller's performance of the Contract, Seller should obtain any information pertaining to employees of UCBOE's personnel records, Seller agrees to keep any such information confidential and to not disclose or permit to be disclosed, directly or indirectly, to any person or entity any such personnel information. Other Confidential Information. (a) Seller agrees that it will at all times hold in confidence for UCBOE all designs, know-how, techniques, devices, drawings, specifications, patterns, technical information, documents, business plans, item requirements, forecasts and similar data, oral, written or otherwise, conveyed by UCBOE to Seller in connection herewith or procured, developed, produced, manufactured or fabricated by Seller in connection herewith or procured, developed, produced, manufactured or fabricated by Seller in connection with Seller's performance hereunder (collectively, "Information"). Seller shall exercise the same degree of care to prevent disclosure of any Information to others as it takes to preserve and safeguard its own proprietary information, but in any event, no less than a reasonable degree of care. Seller shall not, without the prior written consent of UCBOE, reproduce any Information; nor disclose Information to any party; nor use any Information for any purpose other than performance for the benefit of Seller hereunder. (b) Any technical knowledge or information of Seller which Seller shall have disclosed or may hereafter disclose to UCBOE in connection with the Goods or other performance covered by the Contract shall not, unless otherwise specifically agreed upon in writing by UCBOE, be deemed to be confidential or proprietary information and shall be acquired by UCBOE free from any restrictions as part of the consideration of the Contract.

37. **Intellectual Property.** Seller agrees, at its own expense, to indemnify, defend and save UCBOE harmless from all liability, loss or expense, including costs of settlement and attorney's fees, resulting from any claim that UCBOE's use, possession or sale of the Goods or Services infringes any copyright, patent or trademark or is a misappropriation of any trade secret.
38. **No Pre-Judgment or Post-Judgment Interest.** In the event of any action by Seller for breach of contract in connection with the Contract, any amount awarded shall not bear interest either before or after any judgment, and Seller specifically waives any claim for interest.
39. **Background Checks.** At the request of UCBOE's Project Coordinator, Seller (if an individual) or any individual employees of Seller shall submit to UCBOE criminal background check and drug testing procedures.
40. **Mediation.** If a dispute arises out of or relates to the Contract, or the breach of the Contract, and if the dispute cannot be settled through negotiation, the parties agree first to try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Commercial Mediation Rules before resorting to litigation.
41. **No Third Party Benefits.** The Contract shall not be considered by Seller to create any benefits on behalf of any third party. Seller shall include in all contracts, subcontracts or other agreements relating to the Contract an acknowledgment by the contracting parties that the Contract creates no third party benefits.
42. **Force Majeure.** If UCBOE is unable to perform its obligations or to accept the services or goods because of Force Majeure (as hereinafter defined), the time for such performance by UCBOE or acceptance of services will be equitably adjusted by allowing additional time for performance or acceptance of services equal to any periods of Force Majeure. "Force Majeure" shall mean any delays caused by acts of God, riot, war, terrorism, inclement weather, labor strikes, material shortages and other causes beyond the reasonable control of UCBOE.
43. **Ownership of Documents.** All documents created pursuant to the Contract shall, unless expressly provided otherwise in writing, be owned by UCBOE. Upon the termination or expiration of the Contract, any and all finished or unfinished documents and other materials produced by Seller pursuant to the Contract shall, at the request of UCBOE, be turned over to UCBOE. Any technical knowledge or information of Seller which Seller shall have disclosed or may hereafter disclose to UCBOE shall not, unless otherwise specifically agreed upon in writing by UCBOE, be deemed to be confidential or proprietary information and shall be acquired by UCBOE free from any restrictions as part of the consideration of the Contract.
44. **Strict Compliance.** UCBOE may at any time insist upon strict compliance with these terms and conditions notwithstanding any previous course of dealing or course of performance between the parties to the contrary.
45. **General Provisions.** UCBOE's remedies as set forth herein are not exclusive. Any delay or omission in exercising any right hereunder, or any waiver of any single breach or default hereunder, shall not be deemed to be a waiver of such right or of any other right, breach, or default. If action be instituted by Seller hereunder, UCBOE shall be entitled to recover costs and reasonable attorney's fees. Seller may not assign, pledge, or in any manner encumber Seller's rights under this Contract, or delegate the performance of any of its obligations hereunder, without UCBOE's prior, express written consent.
46. **Contract Situs.** All matters, whether sounding in contract or tort relating to the validity, construction, interpretation and enforcement of the Contract, will be determined in Union County, North Carolina. North Carolina law will govern the interpretation and construction of the Contract.
47. **Jessica Lunsford Act.** Contractors, subcontractors, consultants, sub-consultants, and vendors shall annually conduct a review of the State Sex Offender and Public Protection Registration Program, the State Sexually Violent Predator Registration Program, and the National Sex Offender Registry for all employees who will provide services under this contract. Any employee of the contractor, subcontractor, consultant, sub-consultant, or vendor found to be registered on any of the lists identified herein shall not perform any work under this contract and shall not be permitted to enter property owned by Union County Public Schools or Union County on behalf of Union County Public Schools. Failure to comply may result in legal action and termination of the contract for default.

ATTACHMENT B

VAN WINGERDEN GREENHOUSE COMPANY,

4078 Haywood Road

Mills River, NC 28759

Phone: (828)891-7389, Fax: (828)891-5882

Sole Source Letter

16 March 2012

To Whom It May Concern:

This letter serves as a sole source document for the Growing Green Learning Center, hereafter referred to as the "g2 learning center".

The g2 learning center, as distributed through Van Wingerden Greenhouse Company, is more than just a greenhouse structure; it is a complete solution that provides the customer with a learning center that combines an energy efficient greenhouse structure along with renewable energy sources such as a wind turbine, solar PVC panels, solar hot water panels, a water reclamation system and web based monitoring network.

An integral part of the g2 concept is the computer controls component which not only controls the environment and various components within the greenhouse itself (temperature, humidity, operation of shade/energy curtains, vents, and fans) but also monitors energy produced by the renewable energy sources and energy consumed by the greenhouse.

Furthermore; every g2 learning center is linked via an Internet cloud where students/researchers from one g2 may compare data from other g2 learning centers across the country. Each g2 greenhouse is manufactured exclusively by Van Wingerden Greenhouse Company to be energy efficient and to integrate with the renewable energy sources. They are also modular in nature with a uniform design to facilitate the comparison of data between other g2 learning centers.

To the best of our knowledge, no other vendor/manufacture provides a similar complete package that integrates the greenhouse structure, renewable energy sources, and data monitoring with networking between other g2 learning centers around the world.



Richard Van Wingerden
Van Wingerden Greenhouse Company, President



4078 Haywood Road, Mills River, NC 28759
Phone: (828) 891-7389,
Fax: (828) 891-5882

May 23, 2012

Robert Filter, Interim CTE Director
Union County Public Schools
407 Main Street
Monroe, NC 28112
Phone: (704) 296-6365, ext. 4135
Email: robert.filter@ucps.k12.nc.us

Reference: g2 Growing Green Learning Center No. 1 for Parkwood High School

Dear Robert,

We are pleased to submit a proposal for our g2 greenhouse. This proposal is based on the site being located just to the north of the existing baseball field, as shown on the drawings that were submitted on March 8th, 2012. We understand the site could change, but no costs in this proposal reflect that change at this time.

This proposal will be in cooperation with McCarroll Construction Company who is a general contractor in our area. Our proposal consists of the following components:

Proposal No. 845a

PART 1: GREENHOUSE STRUCTURE

1a. Greenhouse Structure:

Materials needed to build a WS-28 model gutter connected greenhouse structure, as per the following specifications:

- | | |
|-------------------------|--|
| Area | <ul style="list-style-type: none">• One (1) bay measuring 28'-0" wide by 60'-0" long, covering 1,680 square feet. |
| Anchor Bolts | <ul style="list-style-type: none">• Anchor bolts and plates to be wet set in concrete footing (concrete footing design & concrete by others – not VWGC). |
| Perimeter Posts | <ul style="list-style-type: none">• Hot dipped galvanized rectangular tubing. |
| Truss Extensions | <ul style="list-style-type: none">• Hot dipped galvanized square tubing. |

- continued -

Trusses	<ul style="list-style-type: none">• Hot dipped galvanized wide span truss by a nominal length of 28'-0". Top and bottom chord is square tubing.
Truss Bracing	<ul style="list-style-type: none">• Hot dipped galvanized square tube.• Two (2) runs per 28'-0" bay.
Truss Clearance	<ul style="list-style-type: none">• 9'-8" from finished floor elevation.
Gutters	<ul style="list-style-type: none">• Hollow aluminum extruded sections, MX3 type.• Spaced at 28'-0", gutter height is 10'-0" from finished floor elevation.
Drip Gutters	<ul style="list-style-type: none">• Aluminum half moon extrusion installed under each gutter.
Water Run Off	<ul style="list-style-type: none">• Water removal will be through exterior downspout outlets welded in the gutters at both ends of the greenhouse. PVC downspout and drainage pipe supplied and installed by owner.
X-Brace Section	<ul style="list-style-type: none">• Wind brace and X-brace rods, 1/2-inch galvanized.
Beam Brace	<ul style="list-style-type: none">• Galvanized beam braces - rectangular tubing along the X-brace and wind brace row.
Hardware	<ul style="list-style-type: none">• Included for materials listed above.

Final design for sizes of structural components and gauges to be as required by a structural engineer. Quotation is based upon 20 psf ground snow load maximum and 90 mph wind using ASCE7-98.

PART 2: ROOF SYSTEM:

2a. Roof System Components:

Roof system components consist of double ridge vents approximately 3'-0" wide by approximately 60'-0" long with rack & pinion opening and closing mechanism; galvanized torque tube bearings & 1.315" O.D. galvanized torque tube; one (1) vent drive motor with built-in limit switches, reversing motor starters and motor protection switch; standard 8mm twin wall clear polycarbonate panels needed to glaze ridge vents and remaining peak. Panels measure 24" wide by 8 mm thick with white insulated PVC capping for securing panels into roof extrusions.

PART 3: GLAZING

3a. Gable Wall Glazing Components:

Materials needed to glaze two (2) gable walls with standard 16mm triple wall clear polycarbonate panels. Each gable wall is 28'-0" long and approximately 18'-0" high to the top of the end roof bar from finished floor elevation, consisting of:

- Horizontal structural girts;
- Aluminum end roof extrusion to accommodate 16mm thick panels;
- White PVC cap to secure polycarbonate into extrusions;
- Standard 16mm triple wall clear polycarbonate panels – spaced approximately 48" on center;
- Hardware for horizontal structural girts and aluminum extrusions for support of the polycarbonate panels.

3b. North Sidewall Glazing Components:

Materials needed to glaze north sidewall with standard 5/8" insulation panels. North sidewall is 60'-0" long and 10'-0" high to the bottom of the gutters from finished floor elevation, consisting of:

- Horizontal structural girts;
- Aluminum gutter flashing extrusion to flash off aluminum gutter and to accommodate panels;
- Standard 5/8" insulation panels – spaced approximately 48" on center;
- Hardware for horizontal structural girts for support of the insulation panels.

3c. Interior Wall Glazing Components (Radiant Floor Mechanical Room):

Materials needed to glaze three (3) interior walls with standard 16mm triple wall clear polycarbonate panels. Two (2) walls are 4'-0" long and approximately 9'-6" high to the bottom of the truss from finished floor elevation and one (1) wall is 6'-0" long and approximately 9'-6" high to the bottom of the truss (no ceiling for mechanical room – see drawing for clarification), consisting of:

- Horizontal structural girts;
- Aluminum end roof extrusion to accommodate 16mm thick panels;
- White PVC cap to secure polycarbonate into extrusions;
- Standard 16mm triple wall clear polycarbonate panels – spaced approximately 48" on center;
- Hardware for horizontal structural girts and aluminum extrusions for support of the polycarbonate panels.

3d. Greenhouse Doors:

Two (2) aluminum doors and frames with tempered glass vision panels and one (1) aluminum door in the Radiant Floor Mechanical Room (see reference drawings for location of doors). Provide standard greenhouse hardware (lockset, closers and hinges).

PART 4: VENTILATION

4a. Exhaust Fans:

Two (2) aluminum exhaust fans, Acme Model No. DCA36G-2S-B, 36", ½ HP, two speed, 115 volts, assembled fan in slant housing, complete with inlet and outlet guards, belt tighteners and aluminum shutters.

4b. Inlet Shutters:

Five (5) Acme type Flo-master automatic inlet shutters, Acme Model No. WAAC6340MT, complete with motorizing kits.

4c. Evaporative Cooling System:

Materials needed to install one (1) section of 'self-contained' Evaporative Cooling System measuring approximately 24'-0" long by approximately 3'-0" high, including:

- Stainless steel and plastic construction;
- Coated one-side evaporative cooling pads;
- Self contained water storage with high volume jet sump pump;
- Automatic float and water filter;
- Pad and supply pipe removal.

4d. Horizontal Air Flow Fans:

Two (2) Schaefer 'Plant-Air Circulation Fans', HAF 12-inch fans, 1/10 horsepower, 115 volts.

PART 5: ENERGY/SHADE SYSTEM

5a. Energy/Shade System:

Materials needed to install an energy/shade overhead curtain system per the following specifications:

- | | |
|------------------------------|---|
| Area | <ul style="list-style-type: none">• One (1) zone – 28'-0" wide by 60'-0" long, covering 1,680 sq. ft. |
| System Configuration | <ul style="list-style-type: none">• Truss to truss. |
| System Support | <ul style="list-style-type: none">• Stainless steel wires. |
| Drive System | <ul style="list-style-type: none">• Stainless steel cable 1/8" with 3" cable rollers.• Galvanized drive shaft, 1.9" OD tubing, 10 gauge. |
| Leading Edge | <ul style="list-style-type: none">• 3/4" galvanized tubing. |
| Fabric Support Cables | <ul style="list-style-type: none">• Stainless steel wires per 24 inches. |
| Curtain Material | <ul style="list-style-type: none">• XLS-10 Ultra Revolux "fire-retardant", approximately 75% diffused shade level and approximate 47% energy savings. |
| Skirting | <ul style="list-style-type: none">• Skirting material used around edges of shade system. |
| Gear Box | <ul style="list-style-type: none">• Hot dipped galvanized skirting brackets.• Electric motor, chain couplings and built-in limit switches. |
| Control Equipment | <ul style="list-style-type: none">• Hot dipped galvanized motor mounting bracket.• Reversing motor starter and motor protection switch. |
| Hardware | <ul style="list-style-type: none">• Included. |

PART 6: BLACKOUT/ENERGY SYSTEM

6a. Blackout/Energy System:

Materials needed to install a blackout/energy overhead curtain system per the following specifications:

Area	<ul style="list-style-type: none">• One (1) zone – 28'-0" wide by 60'-0" long, covering 1,680 sq. ft.
System Configuration	<ul style="list-style-type: none">• Truss to truss.
System Support	<ul style="list-style-type: none">• Stainless steel wires.
Drive System	<ul style="list-style-type: none">• Stainless steel cable 1/8" with 3" cable rollers.• Galvanized drive shaft, 1.9" OD tubing, 10 gauge.
Leading Edge	<ul style="list-style-type: none">• 3/4" galvanized tubing.
Fabric Support Cables	<ul style="list-style-type: none">• Stainless steel wires per 24 inches.
Curtain Material	<ul style="list-style-type: none">• XLS Obscura Revolux A/B & B/B "fire-retardant", blackout cloth.
Skirting	<ul style="list-style-type: none">• Skirting material used around edges of shade system.• Hot dipped galvanized skirting brackets.
Gear Box	<ul style="list-style-type: none">• Electric motor, chain couplings and built-in limit switches.• Hot dipped galvanized motor mounting bracket.
Control Equipment	<ul style="list-style-type: none">• Reversing motor starter and motor protection switch.
Hardware	<ul style="list-style-type: none">• Included.

6b. Roll-Up Curtains:

Materials necessary for roll-up curtains for two (2) gable walls and one (1) sidewall. Each gable roll-up consists of one twin roll-up system measuring approximately 10'-0" high by 28'-0" long. Sidewall roll-up consists of one twin roll-up system with approximately 10'-0" high by 60'-0" long. Fixed cloth has been included for corner sections.

Standard roll-up curtain components:

- ILS Hortiroll (white/white) Revolux cloth;
- Curtain material is designed to be secured at top edge using stainless steel wirelock with aluminum base profile;
- Aluminum extruded roll tube with groove for fabric installation;
- Roll tube motors;
- Track pipe assembly.

PART 7: UNIT HEATERS

7a. Unit Heaters:

Two (2) Modine gas fired propeller unit heaters to burn propane gas, Modine Model No. HD45 'Hot Dawg' model with power venting with spark ignition.

PART 8: BENCH SYSTEM

8a. Bench System:

Materials necessary to provide freestanding benches which consist of the following components:

- Seventeen (17) freestanding benches, 4'-0" wide by 8'-0" long;
- Legs consist of galvanized steel tubing and angle, freestanding on concrete;
- Expanded metal tops;
- Aluminum cross bar supports at 24" +/- to support expanded metal tops;
- Tek screws with washers to secure expanded metal top to frame;
- Aluminum frame (mill finish) with mitered corners;
- Aluminum table top frame bolted to steel frame;
- Steel tube bracing between frames;
- Adjustable threaded table levelers.

PART 9: AUTOMATED CONTROLS

9a. iGrow Controls by Link4:

Controller comes in NEMA 4 watertight enclosure with clear lockable cover, relay outputs, backlit graphical display, keypad for local programming, 2 alarm outputs (compatible with Sensaphone telephone autodialer – not included in this proposal), analog sensor inputs, serial communication channels, digital inputs, manual override switches and green LED status lights for each relay output, red LEG alarm status lights, powered by 12VDC external power supply. Weather station package with temperature in radiation housing, light, wind speed, wind direction and rain sensors with 40' of cable. This proposal includes one 2-day training session by Link4 and VWGC for school personnel involved with the greenhouse.

PART 10: SOLAR PV

10a. Solar PV Panels:

Six (6) PV solar panels; racking; microinverters; 18 ft. pole; cabling and terminator and monitoring.

PART 11: WATER HARVESTING

11a. Water Harvesting System:

2,900 gallon water tank package (8' diameter) with centrifugal pump; rainwater filter and tank aerator.

PART 12: VERTICAL AXIS WIND TURBINE

12a. Vertical Axis Wind Turbine:

Vertical axis wind turbine; annual power output – 975 kWh/yr. (average wind speed of 7 m/s or 15.6 MPH); overall height of 60.85"; 1 kW permanent magnet; electronic braking; 118 lbs.; 30 year design life with PVI 3000 inverter.

PART 13: SOLAR RADIANT HEAT

13a. Solar Radiant Heat System:

One (1) zone of hydronic radiant floor heating system with Uponor 30-year guarantee (150 yr. lifetime expectancy) pex tubing and components. A Navien Combi tankless water heater - 150,000 BTU (96% efficient) for the heat source. The piping will be run on 9" centers and attached directly to rebar or wire mesh.

Two (2) AET 4x10 flat plat solar collectors with a Rheem 120 gallon solar storage tank and 10 gallon drain-back tank. (The drain-back system is for fail proof over heat and freeze protection.) Includes the Apollo web based monitoring system, necessary components and 5 years of monitoring.

It is the intent of this proposal to provide the majority of the above materials by June 30th, 2012 at a total delivered sales price of \$246,505.00 (including NC Sales Tax, insurance, performance bond & various general condition items). The materials price also includes a lockable covered trailer provided by VWGC to be used as storage of materials on site.

Concrete will not be delivered until site is prepped and installation begins on the greenhouse.

This price includes a 1-year annual subscription fee to the g2 website of \$2,500.00.

- continued -

PART 14: GREENHOUSE CONSTRUCTION/INSTALLATION

14a. Greenhouse Construction/Installation:

Labor charges to construct and/or mount:

- Greenhouse structure;
- Glazing of walls as described above;
- Mounting of equipment listed in this proposal only;
- Greenhouse controller is to be mounted and wired by electrician and VWGC personnel will review final greenhouse controls and provide training as described above in Part 9.

14b. Energy/Environmental Components Installation:

Labor charges:

- Mount and commission solar PV panels;
- Install and commission water harvesting system;
- Mount and commission vertical axis wind turbine;
- Install, mount and commission solar radiant floor heating system and solar collectors.

14c. Additional Requirements:

By Contractor:

- 1) Concrete floor slab and foundation system;
- 2) Excavation required by slab and foundation system;
- 3) Final perimeter grading approximately 20'-0" from greenhouse perimeter;
- 4) Plans are to be sealed by engineer licensed/registered in the State of NC.

By Owner:

- 1) Any handicap parking requirements or any other parking or related site work;
- 2) Concrete sidewalks or related work;
- 3) All utilities (water, sanitary sewer, storm sewer, natural gas and electrical) to within 5' of greenhouse structure with electrical service to terminate at electrical meter provided by Owner;
- 4) Seeding of grass in construction area;
- 5) Any utility tap or metering fees.

Total installation = \$66,685.00

TERMS OF SALE

- Proposal covers specified materials only.
- All electrical phases must be confirmed before final contract stage.
- Project delivered to Monroe, NC.
- This delivery schedule as listed above is assuming that the approval of plans is not delayed and items beyond our control that require additional time.
- Approved shop drawings must be by Owner or Owner's agent.
- All items will be invoiced using AIA Application for Payment forms on a monthly basis no later than the 28th day of each month. Invoice to be paid no later than 30 calendar days from the invoice date. Unpaid invoices will accrue 9% APR interest beginning 45 days from invoice. Invoice will include materials suitably stored and insured at manufacturer's facility as well as on the job site, installed material and labor in accordance with the Schedule of Values. Title to all materials stored on the manufacturer's site or on job site will pass to the Contractor at time payment is received. Retainage on material will be 5% and will be indicated on AIA Application for Payment.

Thank you for the opportunity to provide you with a proposal for our g2 Growing Green Learning Center. Please call if you have questions or need further assistance.

Sincerely,
Richard L. Worley, AIA, LEED
General Manager, VWGC