



Purchasing Department
9201 University City Boulevard
Charlotte, NC 28223-0001

March 3, 2009

REQUEST FOR BIDS NO. 66-2378DP

Bids will be publicly opened: March 17, 2009 at 3:00PM

Mandatory Pre-bid meeting: March 10, 2009 (Auxiliary Services Bldg room# 130) at 2:00PM

Commodity: Bird Mitigation project

Refer ALL Inquiries to: Doug Pierce
Phone: 704-687-7322 Fax: 704-687-3122

Contract Type: Agency Specific

e-mail: Doug Pierce dlpierce@email.uncc.edu

Using Agency Name: The University of NC at Charlotte

(See page 2 for mailing instructions.)

Agency Req. TBD

NOTICE TO BIDDERS

Sealed bids, subject to the conditions made a part hereof, will be received at this office until **3:00pm** on the day of opening and then opened, for furnishing and delivering the commodity as described herein. Refer to Page 2 for proper mailing instructions.

EXECUTION

In compliance with this Invitation for Bids, and subject to all the conditions herein, the undersigned offers and agrees to furnish and deliver any or all items upon which prices are bid, at the prices set opposite each item within the time specified herein. By executing this bid, I certify that this bid is submitted competitively and without collusion (G.S. 143-54), that none of our officers, directors, or owners of an unincorporated business entity has been convicted of any violations of Chapter 78A of the General Statutes, the Securities Act of 1933, or the Securities Exchange Act of 1934 (G.S. 143-59.2), and that we are not an ineligible vendor as set forth in G.S. 143-59.1. False certification is a Class I felony.

Failure to execute/sign quote prior to submittal shall render bid invalid. Late bids are not acceptable.

OFFEROR:		FEDERAL ID OR SOCIAL SECURITY NO.	
STREET ADDRESS:		P.O. BOX:	ZIP:
CITY & STATE & ZIP:		TELEPHONE NUMBER:	TOLL FREE TEL. NO (800)
TYPE OR PRINT NAME & TITLE OF PERSON SIGNING:		FAX NUMBER:	
AUTHORIZED SIGNATURE:	DATE:	E-MAIL:	

Offer valid for 45 days from date of opening unless otherwise stated here: _____ days (See Instructions for Bidders, Item 6). Prompt Payment Discount: _____ % _____ days (See Instructions for Bidders, Item 7).

ACCEPTANCE OF BID: If any or all parts of this Bid are accepted, an authorized representative of UNC Charlotte shall affix their signature hereto and this document and the provisions of the Instructions for Bidders, Special Terms and Conditions specific to this Invitation for Bids, the specifications and the North Carolina General Contract Terms and Conditions shall then constitute the written agreement between the parties.

FOR UNC CHARLOTTE PROCUREMENT USE ONLY

Offer accepted and contract awarded this _____ day of _____, 2009, as indicated on attached certification or purchase order,

by, _____ (Authorized representative of UNC Charlotte).

MAILING INSTRUCTIONS: Mail only one fully executed quote document, unless otherwise instructed, and only one bid per envelope. Address envelope and insert quote number as shown below. It is the responsibility of the bidder to have the quote in this office by the specified time and date of opening.

DELIVERED BY US POSTAL SERVICE	DELIVERED BY ANY OTHER MEANS
BID NO. 66-2378DP UNC Charlotte 9201 University City Boulevard Purchasing Department Charlotte, NC 28223-0001	BID NO.66-2378DP UNC Charlotte Purchasing Department 9201 University City Boulevard Auxiliary Services Building 126 Charlotte, NC 28223-0001

Each package containing material you wish to be considered as part of your proposal must be sealed. The bid number, company name, and **North Carolina License Number** must be included on the outside of your sealed proposal. Enter your North Carolina general Contractor number here: _____ Failure to do so may result in the inadvertent opening of the package and may cause your proposal to be rejected.

TABULATIONS: Verbal tabulations of public bids and award information can be obtained by email only. Tabulations may be available the first working day following the date of opening. Requests for written or lengthy tabulations cannot be honored.

TRANSPORTATION CHARGES: All items are to be delivered FOB Destination (The UNC Charlotte Main Campus Jobsite) with all transportation charges reflected in the factored bid.

PREPARATION COSTS: UNC Charlotte will not be responsible for any costs or expenses in preparing and/or submitting your proposal.

PRICING CONDITIONS: Item prices must be stated in U.S. dollars and remain firm for the duration of this Contract.

The quoted price(s) must include all costs to you for materials, labor, equipment, testing and any and all items of expense, fees, taxes, duties, overhead and profit for your full and complete performance of the work as set forth herein.

All pricing information requested in this RFB must be provided. Failure to comply with this request may result in a rejection of any proposal. We reserve the right to request that you furnish any accounting breakdown of all contract prices. This request may be made after a contract price has been finalized with the selected Contractor.

Proposals for this work are being invited from other bidders.

In the case of any discrepancy between words and figures, the words shall prevail. In the case of errors in addition or extension, the unit rates quoted shall prevail.

EXCLUSIVE RIGHTS AND REMEDIES: UNC Charlotte makes no representations, covenants, warranties or guarantees, express or implied, other than those expressly set forth herein. Implied warranties of acceptance of the lowest cost proposal are specifically excluded.

BID EVALUATION: Bids are requested on the items and/or equipment as hereinafter specified or like items similar in design, function and performance. The State reserves the right to reject any bid on the basis of function, compatibility with user requirements of utility as well as costs. Bidder(s) are cautioned that any/all information furnished or not furnished on this bid may be used as a factor in determining the award of this contract.

COMMUNICATIONS: All communications pursuant to or in connection with this bid shall be identified by UNC Charlotte's Bid Number and shall be communicated in writing and delivered in person to an officer of the party to be notified, or sent to the party to be notified, addressed as set forth in the mailing instructions above, by paper mail, facsimile, or electronic mail. Telephone calls must be confirmed in writing within three business days.

Questions regarding this bid must be submitted in writing. If questions are deemed applicable and unanswered in this document, UNC Charlotte will issue an addendum to all bidders.

No question(s) may be submitted within one week (five business days) prior to the bid opening date.

MINORITY REPORTING FORMS:

The forms are available at the site below and must be returned with your bid form.

<http://interscope2.doa.state.nc.us/Forms/MBForms2002-Revised.doc>

TAXES:

North Carolina sales tax and use tax do apply to materials entering into state work (N.C. Sales and Use Tax Regulation, No42, Paragraph "A"), and such cost shall be included in the bid proposal and contract sum.

Local option sales and use taxes do apply to materials entering into state work as applicable (Local Option Sales and Use Tax Act, Regulation No. 57), and such costs shall be included in the bid proposal and contract sum.

MANDATORY SITE VISIT: Prospective bidders and/or bidder representatives are **required** to visit the site of the project and apprise themselves of all conditions which will affect the performance of the work called for or reasonably implied by this Invitation for Bids. The Mandatory Pre-Bid meeting begins promptly at March 10, 2009 at 2:00PM. The meeting will be held at the Auxiliary Services Bldg room 130. Campus map is available@ <http://search.uncc.edu/maps> Vendors are strongly encouraged to arrive early because parking on campus is difficult to obtain. Contractors are encouraged to park in the East Visitor's Parking Deck. Parking in unauthorized areas can result in citation charges at the expense of the contractor. Please arrive early as late attendees will not be allowed access to the meeting and will not be allowed to submit a bid. All parties must remain for the entire meeting. Submission of a bid shall constitute sufficient evidence of this compliance and no allowance will be made for unreported conditions which a prudent bidder would recognize as affecting this performance of the work called for in this Invitation for Bids.

Visited job site? (Yes/no) _____ **Date** _____

Individual(s) in attendance _____

Bidder is cautioned that any information released to attendees during site visit, other than that involving the physical aspects of the facility referenced above, and which conflicts with, supersedes, or adds to requirements in this IFB, must be confirmed by written addendum (issued by this office) before it can be considered to be a part of this IFB document. Bidder bidding otherwise does so at his own risk.

SCOPE: Furnish, deliver, and install all labor, equipment, and materials to complete the bird mitigation project as specified herein. Contractor shall provide all labor, materials, and equipment to provide mitigation of bird/ pigeon waste. Contractor shall complete:

- A. Mitigation of bird waste present on the roof or within any penthouse and the repair of any damaged duct work caused by bird infestation.
- B. Installation of bird netting and bird spikes to prevent further infestation of pigeons.

Contractor shall have expertise in the mitigation of bird droppings should follow precautions to minimize risk from disease organisms in the droppings. Specified work shall include procedures such as sealing heating and cooling air ducts. Contractor shall wear respirators capable of filtering particles as small as 0.3 microns. Contractor's employees shall wear biohazard suits or disposable protective gloves, hat, coveralls and shoe coverings, moistening the bird waste with a mist of water to keep spores from becoming airborne, and properly disposing of the waste material. All areas of roof shall be properly cleaned and verified clean by owner and architect prior to the completion of the project.

Contractor shall ensure that the lower side of the metal roof shall be covered in netting around the entire perimeter. Provide zipper access points as indicated on the plan. Hardware shall not penetrate roof membrane on support post without verifying with roofer. Hardware shall be installed on outside face of support post to allow longer continuous runs of the netting. Contractor shall ensure that all netting be fitted around any piping extending beyond the edge of the roof in a manner that allows no access points for pigeons. Contractor shall install hardware including turnbuckles per manufacturer recommendations.

The central open area of the roof shall be covered in netting fastened to the high side of the metal roof. Netting shall cover all open areas of roof and follow manufacturer recommendations for spans and hardware. Equipment stacks higher than the roof shall have the netting securely fit around them. Any exposed ledges above the netting covered in bird spikes. Careful attention shall be given to areas where the pediment roofs attach to the main roof structure. Owner has observed that pigeons appear to also be accessing the center mechanical room. Contractor shall provide spiking and or netting as needed to eliminate this potential roosting area. This is a turn-key project.

All workmanship and materials shall be first class. All materials and work associated with this project shall meet or exceed all federal, state, and local codes in full compliance with the State of North Carolina Department of Insurance regulations. Contractor shall be fully responsible for ensuring that all work is conducted in full compliance with OSHA safety standards. Additionally, contractor shall ensure that all necessary precautions are taken to designate the area as such, installing the proper signage, barricades, and other related safety equipment to secure the safety of Students, Faculty, and Staff as well as contractor's employees. Work shall be conducted in a professional courteous manner. Contractor shall be aware of and comply with UNC Charlotte policies concerning Sexual Harassment. Any of the contractor's employees failing to exhibit a professional behavior will be asked to leave. Such activity could result in the termination of the contractor. Contractor shall ensure that his /or her employees always arrive to the University in Uniform identifying their employee and the Company name- Preferably wearing a picture identification card as well. Contractor shall provide certificate of insurance prior to beginning work. If your bid is equal to or exceeds \$300,000.00 you must provide a 5% bid bond and a performance bond equal to your proposal. Contractor must be bonded and insured. Enter cost for bid bond and performance bond here if applicable.

Contractor shall be bonded and insured based if the cost thresholds conditions are met. Enter cost for bid bond and performance bond here if applicable. \$_____ (if applicable)

Warranty offered_____

Contractor must have a minimum of (2) two years continuous years of commercial experience.

Do you have 2 years of continuous commercial contractual experience? _____

Contractor must provide (5) five references within the past two years of similar size and scope.

Company name	Date	Contact name and dollar value	Project name	Contact email	Contact Phone

Contractor must provide a valid certificate of insurance to include commercial liability and workmen's compensation within 48 hours (2) business days of the notice of award.

Total material and equipment cost for this project \$_____

Total labor cost for the completion of this project \$_____

Total cost of professional contractual services for this project \$_____

Total cost of Bid and Performance Bonding \$_____

Total freight and delivery charges \$_____ (FOB UNC Charlotte)

Grand total cost for this turn-key project \$_____

The University of North Carolina Charlotte aggressively supports the use of HUB/ minority owned firms across the board in its business practices. Specify the %_____ and cost \$_____ associated with HUB/ minority participation.

Specify the firms used and the type(s) of goods and services provided: Attach additional as needed. _____

SPECIFIC TERMS AND CONDITIONS

Bids shall include all labor, materials, and delivery (FOB UNC Charlotte).

All materials and workmanship shall be of first quality.

Equipment and materials stored at the site will shall be at the contractor's risk.

All debris to be removed from the campus and proper clean up performed.

All work shall be completed in full compliance to OSHA standards

All equipment, signage, etc. shall meet or exceed OSHA standards

Contractor must provide UNC Charlotte with a current commercial liability, vehicular, and workmen's 'compensation certificate to the representative listed above in the UNC Charlotte Materials Management Department prior to beginning work.

Contractor shall be responsible for providing on-site Demolition container(s) to be placed in University approved area(s). Additionally, contractor shall be responsible for the proper disposal of all construction debris; and report solid waste and recycling weights to the UNC Charlotte Facilities Management Solid Waste and Recycling Office.

Contractor agrees to indemnify and hold harmless the university in all activities performed by the contractor or contractor's employees/subcontractors in conjunction with this agreement including employee accident/death.

If, during the progress of the work or during the period of guarantee, the contractor fails to prosecute the work properly or to perform any provision of the contract, the owner, after fifteen (15) days' written notice sent by certified mail, return receipt requested, to the contractor from the owner, may perform or have performed that portion of the work. The cost of the work may be deducted from any amounts due or to become due to the contractor, such action and cost of same having been first approved by the owner. Should the cost of such action of the owner exceed the amount due or to become due the contractor, then the contractor or his surety, or both, shall be liable for and shall pay to the owner the amount of said excess.

All contractors are required to check in at the UNC Charlotte Facilities Management Building prior to proceeding to the job site to begin work.

Contractor agrees to waive, release, and relinquish any right to a mechanic's lien, which we (I) may now have, or may in the future have, by reason of the performance of any work for, or the furnishing of any material to, the University. Contractor also agrees to prevent or discharge each and every lien claimed upon the premises of the University by or through any person or persons furnishing labor or material or both, for said premises, at our (my) instance or the instance or the instance of any subcontractors. Contractor agrees to furnish the University with a list of all subcontractors. Use of subcontractors is to be subject University approval in advance.

Contractor shall provide one complete original response to this bid with (2) two photo copies in a sealed bid envelope.

SPECIAL TERMS AND CONDITIONS

Participation by minority, handicapped and women owned firms is encouraged.

The University of North Carolina at Charlotte is an Equal Opportunity Employer. It considers applicants for employment in all categories of service, without regard to race, color, religion, sex or national origin. In view of this policy, it is requested that all University contractors, vendors, and suppliers take appropriate action to ensure compliance with current federal and state equal opportunity legislation. Contractor shall require compliance by any subcontractors. Any contractor or subcontractor having 50 or more employees must have a written affirmative action compliance program. Reporting as required by state statute must be submitted. Specific attention is called to 41CFR of the Office of Contract Compliance Programs Publications parts 60-1 through 60-60, 60-250, 60-741, and section 402-503, as well as executive order 11246 as amended.

VENDOR REGISTRATION AND SOLICITATION NOTIFICATION SYSTEM

Vendor Link NC allows vendors to electronically register free with the state to receive electronic notification of current procurement opportunities for goods and services available on the interactive Purchasing System. Online registration and other purchasing information are available on our internet web site: <http://www.state.nc.us/pandc>.

Historically Underutilized Business certification: (please check applicable categories)

UNC Charlotte actively supports doing business with historically underutilized vendors. If appropriate, be sure to complete this certification section.

Indicate whether any of the following apply to your firm:

(1) Minority-owned business: Yes _____ No _____
(Minority Definition: at least 51% of the business owned and controlled by minority group members)

Please indicate specific minority group:

_____ African American

_____ Hispanic (Mexican, Puerto Rican, Cuban, Caribbean Island, Central or South America, other Spanish origin regardless of race).

_____ Asian (including Pacific Islander)

_____ American Indian (including Alaska native)

(2) Woman owned: (51% owned and controlled by women) Yes _____ No _____

(3) Disabled owned (51% owned and controlled by a physically or mentally impaired person)
Yes _____ No _____

List Disability _____

List below the agencies from which you have received HUB certification:

NO PAYMENTS WILL BE RELEASED UNTIL THIS FORM IS COMPLETED AND RETURNED

Federal law requires that we have on file a W-9 form with the Employer ID number or Social Security number and signature for each person to whom the University makes a payment. Our records show that we do not have a current W-9 on file for you. Please complete this form and return it to UNC Charlotte, Accounts Payable Dept. – Reese Bldg., 9201 University City Blvd., Charlotte, NC 28223 or FAX to 704-687-6013 or return to the Department requester at the following fax number _____.

Vendor name: (As shown on TIN)	
Business name or DBA: (if different from above)	
Taxpayer Identification number (TIN): Employer Identification Number (EIN): _____ - _____ (For corporations, Trusts, Estates, Pension Trust Associations, Clubs, Religious, Charitable, Educational, or other tax exempt organizations, partnerships, Brokers or registered nominees) SOCIAL SECURITY NUMBER (SSN): _____ - _____ - _____ (for individuals and Sole Proprietorships)	
<i>Certification – Under penalties of perjury, I certify that: (1) the number shown above is my correct taxpayer identification number; (2) I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the IRS that I am subject to backup withholding; and (3) the information provided is complete and accurate as of this date.</i>	
Signature _____	Date _____
Name (Please Print) _____	Title _____

	Order Address (VO)	Remit to Address (VR)
Street:		
Street:		
City:		
County:		
State/Zip Code:		
Telephone /Fax		
Contact Person:		
E-Mail Address:		
Account Info. (#)		

Check one:	Check all that apply:	Check all that apply:	
<u>LEGAL STATUS</u>	<u>CORPORATE STATUS</u>	<u>BUSINESS CLASSIFICATION</u>	<u>PAYMENT TERMS</u>
☐ Corporation (CP)	☐ Non or not for profit (NP)	☐ Minority Owned (MO)	☐ Net 30 (30)
☐ Partnership (PA)	☐ Foreign Corporation (FC)	☐ African American (MB)	☐ Net 10 (10)
☐ Other – (please specify) _____	☐ NC State Agency (NC)	☐ Hispanic American (MH)	☐ Net 15 (15)
	☐ Government (GO)	☐ Asian American (MA)	☐ Other: _____
	<u>INDIVIDUAL STATUS</u>	☐ American Indian (MI)	
☐ Individual/Sole Proprietor (IS)	☐ U S Citizen (US)	☐ Women Owned (WO)	
	☐ Resident Alien (RA)	☐ Disabled Owned (DE)	
	☐ Non Resident Alien (NR)		

INSTRUCTIONS TO BIDDERS

1. **READ, REVIEW AND COMPLY:** It shall be the bidder's responsibility to read this entire document, review all enclosures and attachments, and comply with all requirements specified herein.
2. **NOTICE TO BIDDERS:** All bids are subject to the provisions of the Instructions to Bidders, special terms and conditions specific to this Invitation for Bids, the specifications, and the North Carolina General Contract Terms and Conditions.
UNC Charlotte objects to and will not evaluate or consider any additional terms and conditions submitted with a bidder response. This applies to any language appearing in or attached to the document as part of the bidder's response. **DO NOT ATTACH ANY ADDITIONAL TERMS AND CONDITIONS.**
By execution and delivery of this document, the bidder agrees that any additional terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect.
3. **DEFINITIONS:**
 - **BIDDER:** Company, firm, corporation, partnership, individual, etc., submitting a response to an Invitation for Bids.
 - **TERM CONTRACT:** A contract generally intended to cover all normal requirements for a commodity for a specified period of time based on estimated quantities only.
 - **STATEWIDE TERM CONTRACT:** A Term Contract for all agencies, unless exempted by statute, rule, or special term and condition specific to this bid.
 - **AGENCY SPECIFIC TERM CONTRACT:** A Term Contract for a specific agency.
 - **OPEN MARKET CONTRACT:** A contract for the purchase of a commodity not covered by a term contract.
4. **EXECUTION:** Failure to sign under the EXECUTION section will render bid invalid.
5. **ORDER OF PRECEDENCE:** In cases of conflict between specific provisions in this bid, the order of precedence shall be (1) special terms and conditions specific to this bid, (2) specifications, (3) North Carolina General Contract Terms and Conditions, and (4) Instructions to Bidders.
6. **TIME FOR CONSIDERATION:** Unless otherwise indicated on the first page of this document, bidder's offer shall be valid for 45 days from the date of bid opening. Preference may be given to bids allowing not less than 45 days for consideration and acceptance.
7. **PROMPT PAYMENT DISCOUNTS:** Bidders are urged to compute all discounts into the price offered. If a prompt payment discount is offered, it will not be considered in the award of the contract except as a factor to aid in resolving cases of identical prices.
8. **SPECIFICATIONS:** Any deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that items offered are in strict compliance with these specifications, and bidder will be held responsible therefore. Deviations shall be explained in detail. **The bidder shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.**
9. **INFORMATION AND DESCRIPTIVE LITERATURE:** Bidder is to furnish all information requested and in the spaces provided in this document. Further, if required elsewhere in this bid, each bidder must submit with their bid sketches, descriptive literature and/or complete specifications covering the products offered. Reference to literature submitted with a previous bid will not satisfy this provision. Bids which do not comply with these requirements will be subject to rejection.
10. **RECYCLING AND SOURCE REDUCTION:** It is the policy of this State to encourage and promote the purchase of products with recycled content to the extent economically practicable, and to purchase items which are reusable, refillable, repairable, more durable, and less toxic to the extent that the purchase or use is practicable and cost-effective.
We also encourage and promote using minimal packaging and the use of recycled/recyclable products in the packaging of commodities purchased. However, no sacrifice in quality of packaging will be acceptable. The company remains responsible for providing packaging that will protect the commodity and contain it for its intended use.
Companies are strongly urged to bring to the attention of the purchasers in the Division of Purchase and Contract those products or packaging they offer which have recycled content and that are recyclable.
11. **CLARIFICATIONS/INTERPRETATIONS:** Any and all questions regarding this document must be addressed to the purchaser named on the cover sheet of this document. Do not contact the user directly. Any and all revisions to this document shall be made only by written addendum from the Division of Purchase and Contract. The bidder is cautioned that the requirements of this bid can be altered only by written addendum and that verbal communications from whatever source are of no effect.
12. **ACCEPTANCE AND REJECTION:** UNC Charlotte reserves the right to reject any and all bids, to waive any informality in bids and, unless otherwise specified by the bidder, to accept any item in the bid. If either a unit price or extended price is obviously in error and the other is obviously correct, the incorrect price will be disregarded.
13. **REFERENCES:** UNC Charlotte reserves the right to require a list of users of the exact item offered. UNC Charlotte may contact these users to determine acceptability of the bid. Such information may be considered in the evaluation of the bid.

14. **TAXES:**

- **FEDERAL:** All agencies participating in this contract are exempt from Federal Taxes, such as excise and transportation. Exemption forms submitted by the contractor will be executed and returned by the using agency.
- **OTHER:** Prices offered are not to include any personal property taxes, nor any sales or use tax (or fees) unless required by the North Carolina Department of Revenue.

15. **AWARD OF CONTRACT:** As directed by statute, qualified bids will be evaluated and acceptance may be made of the lowest and best bid most advantageous to UNC Charlotte as determined upon consideration of such factors as: prices offered; the quality of the articles offered; the general reputation and performance capabilities of the bidders; the substantial conformity with the specifications and other conditions set forth in the bid; the suitability of the articles for the intended use; the related services needed; the date or dates of delivery and performance; and such other factors deemed by UNC Charlotte to be pertinent or peculiar to the purchase in question. Unless otherwise specified by UNC Charlotte or the bidder, UNC Charlotte reserves the right to accept any item or group of items on a multi-item bid.
- In addition, on TERM CONTRACTS, UNC Charlotte reserves the right to make partial, progressive or multiple awards: where it is advantageous to award separately by items; or where more than one supplier is needed to provide the contemplated requirements as to quantity, quality, delivery, service, geographical areas; other factors deemed by UNC Charlotte to be pertinent or peculiar to the purchase in question.

16. **HISTORICALLY UNDERUTILIZED BUSINESSES:** Pursuant to General Statute 143-48 and Executive Order #150, UNC Charlotte invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.

17. **CONFIDENTIAL INFORMATION:** As provided by statute and rule, UNC Charlotte will consider keeping trade secrets which the bidder does not wish disclosed confidential. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL" by the bidder. Cost information shall not be deemed confidential. In spite of what is labeled as a trade secret, the determination whether it is or not will be determined by North Carolina law.

18. **SAMPLES:** Sample of items, when required, must be furnished as stipulated herein, free of expense, and if not destroyed will, upon request be returned at the bidder's expense. Request for the return of samples must be made within 10 days following date of bid opening. Otherwise the samples will become UNC Charlotte property. Each individual sample must be labeled with the bidder's name, bid number, and item number. A sample on which an award is made, will be retained until the contract is completed, and then returned, if requested, as specified above.

19. **PROTEST PROCEDURES:** When an offeror wants to protest a contract awarded pursuant to this solicitation, that is over \$10,000, they must submit a written request to the State Purchasing Officer at the address given in the solicitation document entitled "Mailing Instructions". This request must be received in the Division of Purchase and Contract within thirty (30) consecutive calendar days from the date of the contract award, and must contain specific reasons and any supporting documentation for the protest. **Note:** Contract award notices are sent **only** to those actually awarded contracts, and not to every person or firm responding to this solicitation. Bid status and Award notices are posted on the Internet at <http://www.state.nc.us/PandC/>. **All protests will be handled pursuant to the North Carolina Administrative Code, Title 1, Department of Administration, Chapter 5, Purchase and Contract, Section 5B.1519.**

20. **MISCELLANEOUS:** Masculine pronouns shall be read to include feminine pronouns, and the singular of any word or phrase shall be read to include the plural and vice versa.

21. **RECIPROCAL PREFERENCE:** G.S. 143-59 establishes a reciprocal preference law to discourage other states from applying in-state preferences against North Carolina's resident bidders. The "Principal Place of Business" is defined as the principal place from which the trade or business of the bidder is directed or managed.

22. **OWNERS RIGHT TO DO WORK:** If, during the progress of the work or during the period of guarantee, the contractor fails to prosecute the work properly or to perform any provision of the contract, the owner, after fifteen (15) days' written notice sent by certified mail, return receipt requested, to the contractor from the owner, may perform or have performed that portion of the work. The cost of the work may be deducted from any amounts due or to become due to the contractor, such action and cost of same having been first approved by the owner. Should the cost of such action of the owner exceed the amount due or to become due the contractor, then the contractor or his surety, or both, shall be liable for and shall pay to the owner the amount of said excess.

NORTH CAROLINA GENERAL CONTRACT TERMS AND CONDITIONS

1. **DEFAULT AND PERFORMANCE BOND:** In case of default by the contractor, UNC Charlotte may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby. UNC Charlotte reserves the right to require performance bond or other acceptable alternative guarantees from successful bidder without expense to UNC Charlotte.
2. **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 contractor to notify, in writing, the issuing purchasing office at once, indicating the specific regulation which required such alterations. UNC Charlotte reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the contract.
3. **AVAILABILITY OF FUNDS:** Any and all payments to the contractor are dependent upon and subject to the availability of funds to the agency for the purpose set forth in this agreement.
4. **TAXES:** Any applicable taxes shall be invoiced as a separate item.

G.S. 143-59.1 bars the Secretary of Administration from entering into contracts with vendors if the vendor or its affiliates meet one of the conditions of G. S. 105-164.8(b) and refuse to collect use tax on sales of tangible personal property to purchasers in North Carolina. Conditions under G. S. 105-164.8(b) include: (1) Maintenance of a retail establishment or office, (2) Presence of representatives in the State that solicit sales or transact business on behalf of the vendor and (3) Systematic exploitation of the market by media-assisted, media-facilitated, or media-solicited means. By execution of the bid document the vendor certifies that it and all of its affiliates, (if it has affiliates), collect(s) the appropriate taxes.

5. **SITUS:** The place of this contract, its situs and forum, shall be North Carolina, where all matters, whether sounding in contract or tort, relating to its validity, construction, interpretation and enforcement shall be determined.
6. **GOVERNING LAWS:** This contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina.
7. **INSPECTION AT CONTRACTOR'S SITE:** UNC Charlotte 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 UNC Charlotte 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.
8. **PAYMENT TERMS:** Payment terms are Net not later than 30 days after receipt of correct invoice or acceptance of goods, whichever is later. The using agency is responsible for all payments to the contractor under the contract. Payment by some agencies may be made by procurement card and it shall be accepted by the contractor for payment if the contractor accepts that card (Visa, Mastercard, etc.) from other customers. If payment is made by procurement card, then payment may be processed immediately by the contractor.
9. **EMPLOYMENT AND AFFIRMATIVE ACTION:** The contractor will comply with all Federal and State requirements concerning fair employment. The contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of people with disabilities, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin or disability.
10. **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.
11. **STANDARDS:** All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization; such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and /or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.
12. **PATENT:** The contractor shall hold and save UNC Charlotte, its officers, agents and employees, harmless from liability of any kind, including costs and expenses, on account of any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this contract, including use by the government.
13. **ADVERTISING:** Contractor agrees not to use the existence of this contract or the name of the State of North Carolina as part of any commercial advertising.
14. **ACCESS TO PERSONS AND RECORDS:** The State Auditor shall have access to persons and records as a result of all contracts or grants entered into by State agencies or political subdivisions in accordance with General Statute 147-64.7.
15. **ASSIGNMENT:** No assignment of the contractor's obligations nor the contractor's right to receive payment hereunder shall be permitted.
However, upon written request approved by the issuing purchasing authority and solely as a convenience to the contractor, UNC Charlotte may:
 - a. Forward the contractor's payment check directly to any person or entity designated by the contractor, and
 - b. Include any person or entity designated by contractor as a joint payee on the contractor's payment check.

In no event shall such approval and action obligate the State to anyone other than the contractor and the contractor shall remain responsible for fulfillment of all contract obligations.

16. **INSURANCE:**

COVERAGE - During the term of the contract, the contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the contract. As a minimum, the contractor shall provide and maintain the following coverage and limits:

a. **Worker's Compensation** - The contractor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$150,000.00, covering all of contractor's employees who are engaged in any work under the contract. If any work is sublet, the contractor shall require the subcontractor to provide the same coverage for any of his employees engaged in any work under the contract.

b. **Commercial General Liability** - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of \$500,000.00 Combined Single Limit. (Defense cost shall be in excess of the limit of liability.)

c. **Automobile** - Automobile Liability Insurance, to include liability coverage, covering all owned, hired and non-owned vehicles, used in connection with the contract. The minimum combined single limit shall be \$150,000.00 bodily injury and property damage; \$150,000.00 uninsured/under insured motorist; and \$1,000.00 medical payment.

REQUIREMENTS: Providing and maintaining adequate insurance coverage is a material obligation of the contractor and is of the essence of this contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The contractor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the contractor shall not be interpreted as limiting the contractor's liability and obligations under the contract.

17. **YEAR 2000 COMPLIANCE/WARRANTY:** Vendor shall ensure the product(s) and service(s) furnished pursuant to this agreement ("product" shall include, without limitation, any piece of equipment, hardware, firmware, middleware, custom or commercial software, or internal components, subroutines, and interfaces therein) which perform any date and/or time data recognition function, calculation, or sequencing, will support a four digit year format, and will provide accurate date/time data and leap year calculations on and after December 31, 1999, at the same level of functionality for which originally acquired without additional cost to the user. This warranty shall survive termination or expiration of the agreement.

18. **GENERAL INDEMNITY:** The contractor shall hold and save the State, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses, with the exception of consequential damages, accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the contractor in the performance of this contract and that are attributable to the negligence or intentionally tortuous acts of the contractor provided that the contractor is notified in writing within 30 days that the State has knowledge of such claims. The contractor represents and warrants that it shall make no claim of any kind or nature against the State's agents who are involved in the delivery or processing of contractor goods to the State. The representation and warranty in the preceding sentence shall survive the termination or expiration of this contract.

19. **ELECTRONIC PROCUREMENT (APPLIES TO ALL CONTRACTS THAT INCLUDE E-PROCUREMENT AND ARE IDENTIFIED AS SUCH IN THE BODY OF THE SOLICITATION DOCUMENT):** Purchasing shall be conducted through the Statewide E-Procurement Service. The State's third party agent shall serve as the Supplier Manager for this E-Procurement Service. The contractor shall register for the Statewide E-Procurement Service within two (2) business days of notification of award in order to receive an electronic purchase order resulting from award of this contract.

THE SUCCESSFUL BIDDER(S) SHALL PAY A TRANSACTION FEE OF 1.75% (.0175) ON THE TOTAL DOLLAR AMOUNT (EXCLUDING SALES TAXES) OF EACH PURCHASE ORDER ISSUED THROUGH THE STATEWIDE E-PROCUREMENT SERVICE This applies to all purchase orders, regardless of the quantity or dollar amount of the purchase order. This transaction fee shall neither be charged to nor paid by the State, or by any State approved users of the contract. The transaction fee shall not be stated or included as a separate item in the proposed contract or invoice. There are no additional fees or charges to the contractor for the services rendered by the Supplier Manager under this contract. Contractor will receive a credit for transaction fees they paid for the purchase of any item(s) if an item(s) is returned through no fault of the contractor. Transaction fees are non-refundable when an item is rejected and returned, or declined, due to the contractor's failure to perform or comply with specifications or requirements of the contract.

Contractor or its Authorized Reseller, as applicable, will be invoiced monthly for the State's transaction fee by the Supplier Manager. The transaction fee shall be based on purchase orders issued for the prior month. Unless Supplier Manager receives written notice from the Contractor identifying with specificity any errors in an invoice within thirty (30) days of the receipt of invoice, such invoice shall be deemed to be correct and Contractor shall have waived its right to later dispute the accuracy and completeness of the invoice. Payment of the transaction fee by the Contractor is due to the account designated by the State within thirty (30) days after receipt of the correct invoice for the transaction fee, which includes payment of all portions of an invoice not in dispute. Within thirty (30) days of the receipt of invoice, contractor may request in writing an extension of the invoice payment due date for that portion of the transaction fee invoice for which payment of the related goods by the governmental purchasing entity has not been received by the Contractor. If payment of the transaction fee is not received by the State within this payment period, it shall be considered a material breach of contract. The Supplier Manager shall provide, whenever reasonably requested by the contractor in writing (including electronic documents), supporting documentation from the E-Procurement Service that accounts for the amount of the invoice.

The Supplier Manager will capture the order from the State approved user, including the shipping and payment information, and submit the order in accordance with the E-Procurement Service. Subsequently, the Supplier Manager will send those orders to the appropriate contractor on State Contract. The State or State approved user, not the Supplier Manager, shall be responsible for the solicitation, bids received, evaluation of bids received, award of contract, and the payment for goods delivered.

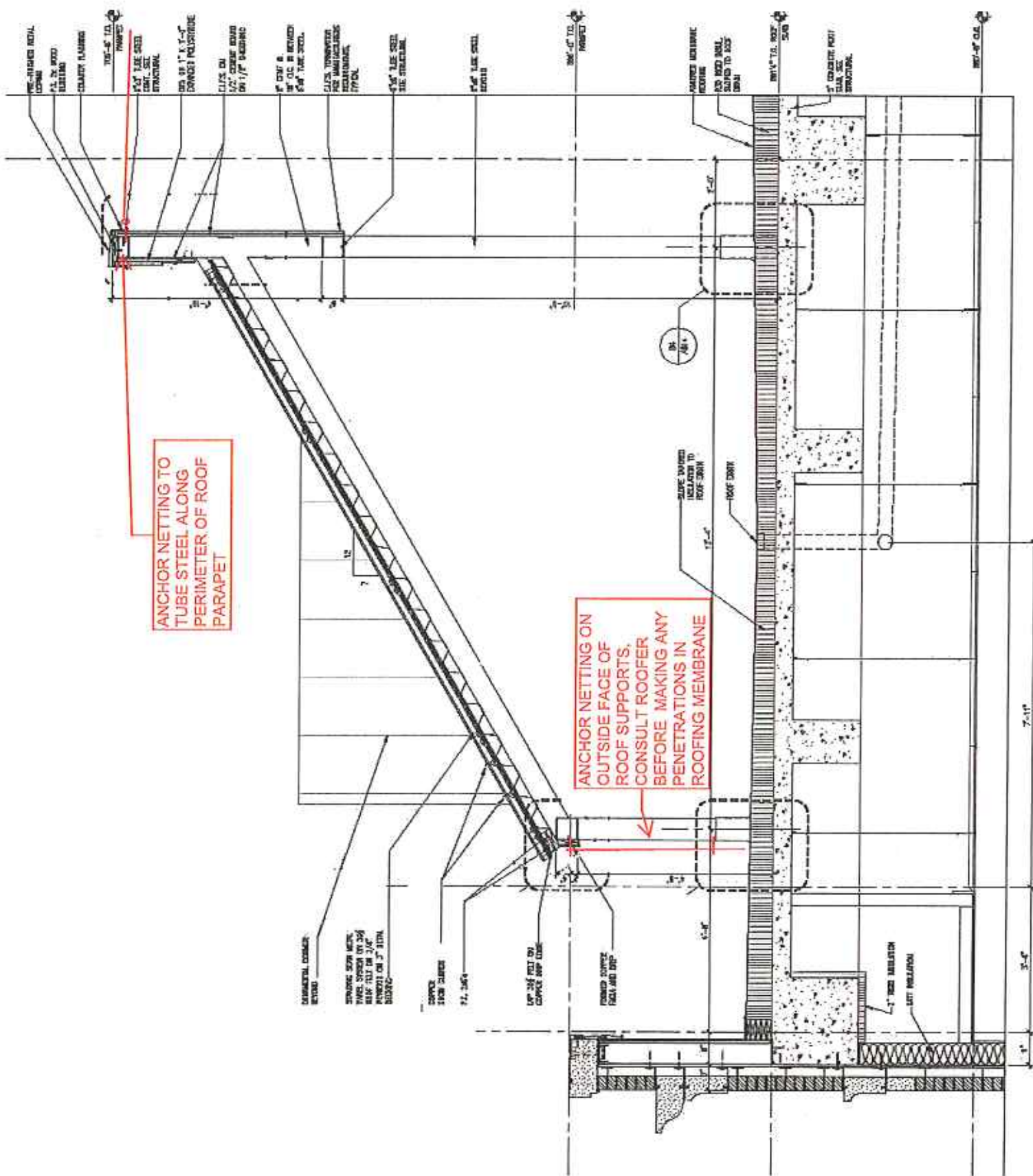
Contractor agrees at all times to maintain the confidentiality of its user name and password for the Statewide E-Procurement Services. If a contractor is a corporation, partnership or other legal entity, then the contractor may authorize its employees to use its password. Contractor shall be responsible for all activity and all charges by such employees. Contractor agrees not to permit a third party to use the Statewide E-Procurement Services through its account. If there is a breach of security through the contractor's account, contractor shall immediately change its password and notify the Supplier Manager of the security breach by e-mail. Contractor shall cooperate with the State and the Supplier Manager to mitigate and correct any security breach.

20. **ELECTRONIC PROCUREMENT (APPLIES ONLY TO STATEWIDE TERM CONTRACTS):** Within ten (10) calendar days of notice, the contractor shall provide supplier information, contract pricing and other product-related information requested by the State or the Supplier Manager. This information shall include such information as contractor name, SKU, brand/manufacturer, product name and a brief description, unit of measure, price, and other similar information or properly requested by the State or the Supplier Manager to facilitate purchasing from the contract. This information shall be posted by the contractor in the format provided by the Supplier Manager, or as otherwise provided in a template or format required by the State. No costs or expenses associated with providing this information shall be charged to the State, its agents (including Supplier Manager) or State approved users of the contract. For the purposes of this contract, the contractor warrants that it is authorized and empowered to and hereby grants the State and the Supplier Manager the right and license to use, reproduce, transmit, distribute and publicly display this information. In addition, for the purposes of this contract, the contractor warrants that it is authorized and empowered to and hereby grants the State and the Supplier Manager the right and license to reproduce and display contractor's trademarks, service marks, logos, trade dress or other branding designation that identifies the goods available under the contract. The Supplier Manager shall create and maintain, with contractor's timely assistance, web-based placement of contract information, where appropriate, that includes the contract items distributed by the contractor within the appropriate contract categories. The State shall provide any price adjustment/product modification information that it has approved during the course of the contract, to the Supplier Manager immediately upon such change.

If the contractor is not the manufacturer, then it shall be the contractor's responsibility to obtain authorization from the manufacturer to comply with the provisions of this contract, including any appropriate intellectual property rights of the manufacturer. If the contractor is the manufacturer, then the manufacturer shall only authorize dealers, outlets, distributors, value added resellers, etc. (together, "Authorized Resellers") within their network that can comply with the provisions of this contract.

CONTRACTOR IS AND SHALL REMAIN RESPONSIBLE FOR PAYING THE TRANSACTION FEE ON BEHALF OF ITS AUTHORIZED RESELLERS IN THE EVENT THAT THE AUTHORIZED RESELLER(S) DEFAULTS.

21. **CANCELLATION (TERM CONTRACTS ONLY):** All contract obligations shall prevail for at least 90 days after the effective date of the contract. After that period, in addition to the provisions of the paragraph entitled Price Adjustments, for the protection of both parties, this contract may be canceled in whole or in part by either party by giving 30 days prior notice in writing to the other party.
22. **QUANTITIES (TERM CONTRACTS ONLY):** The award of a term contract neither implies nor guarantees any minimum or maximum purchases thereunder.
23. **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 contractor to other customers.
- a. **Notification:** Must be given to UNC Charlotte, in writing, concerning any proposed price adjustments. Such notification shall be accompanied by copy of manufacturer's official notice or other acceptable evidence that the change is general in nature.
 - b. **Decreases:** UNC Charlotte 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 UNC Charlotte reserving the right to accept or reject the increase, or cancel the contract. Such action by UNC Charlotte shall occur not later than 15 days after the receipt by UNC Charlotte 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.
 - d. **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.



ANCHOR NETTING TO
TUBE STEEL ALONG
PERIMETER OF ROOF
PARAPET

ANCHOR NETTING ON
OUTSIDE FACE OF
ROOF SUPPORTS,
CONSULT ROOFER
BEFORE MAKING ANY
PENETRATIONS IN
ROOFING MEMBRANE

PRE-CASTED CONCRETE
SLAB ON GRADE

1/2" POLYSTYRENE
INSULATION

1/2" POLYSTYRENE
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CONCRETE
SLAB ON GRADE

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INSULATION



2108 South Boulevard, Suite 200
Charlotte, North Carolina 28203
(704) 362-0011 Fax (704) 362-0014 www.bjac.com



CONSTRUCTION DOCUMENTS

Disclaimer:
Errors may occur during transmission of electronic files. BJAC, Inc. is not responsible for any claims, damages, or expenses arising out of the use of the information contained in electronic files.

Electronic files may not accurately reflect the final as built conditions. It is the responsibility of the user to verify all typology, dimensions, and other related information.

UNC CHARLOTTE
APPLIED OPTICS &
PHYSICS LABS
BUILDING
IMPROVEMENT

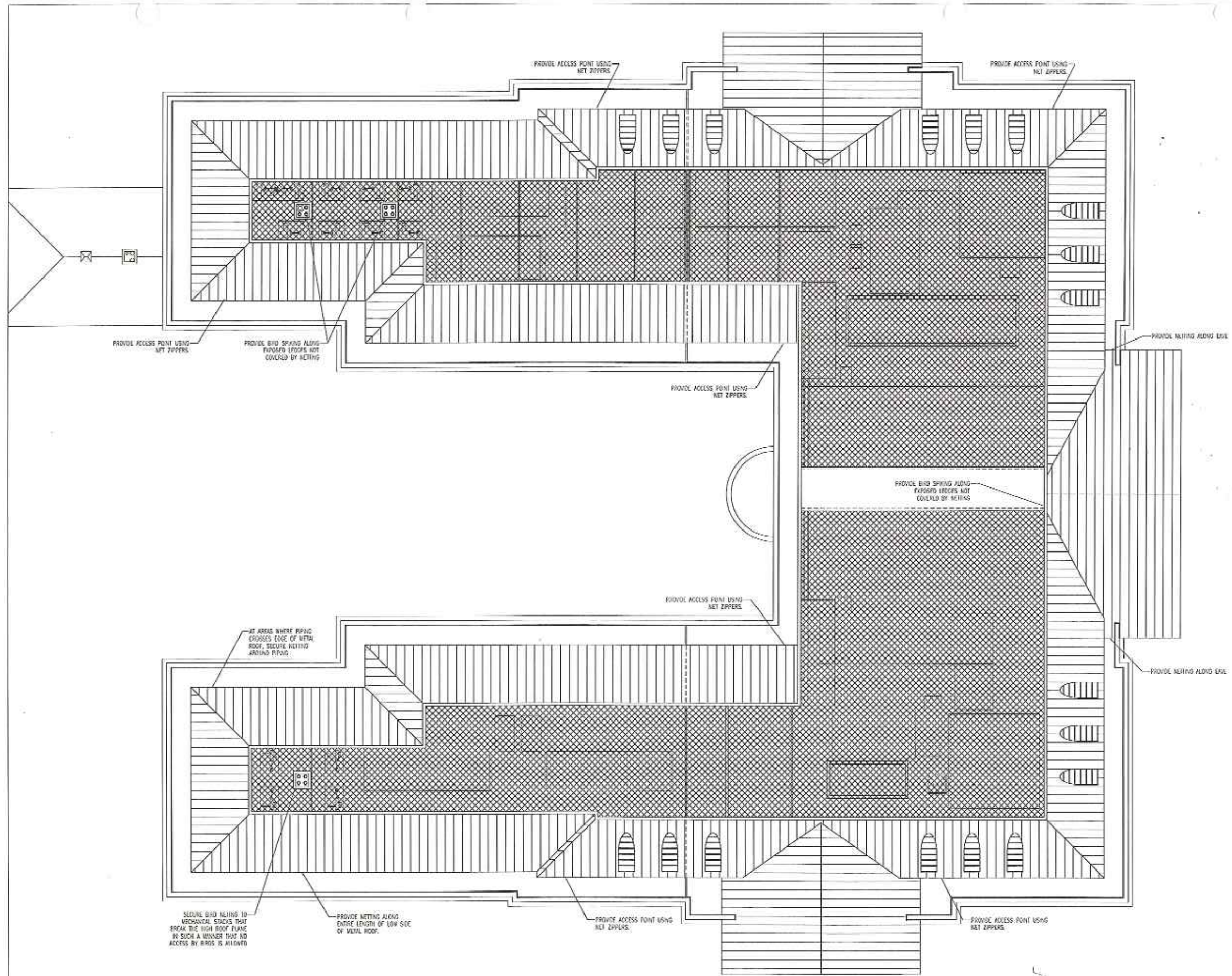
SCO ID# 050660502A
EDA # 04-01-05667



PROJECT NO.	04-01-05667
DESIGNED BY	JL
CHECKED BY	JL
DATE	6/18/08
REVISION	
DATE	
DESCRIPTION	

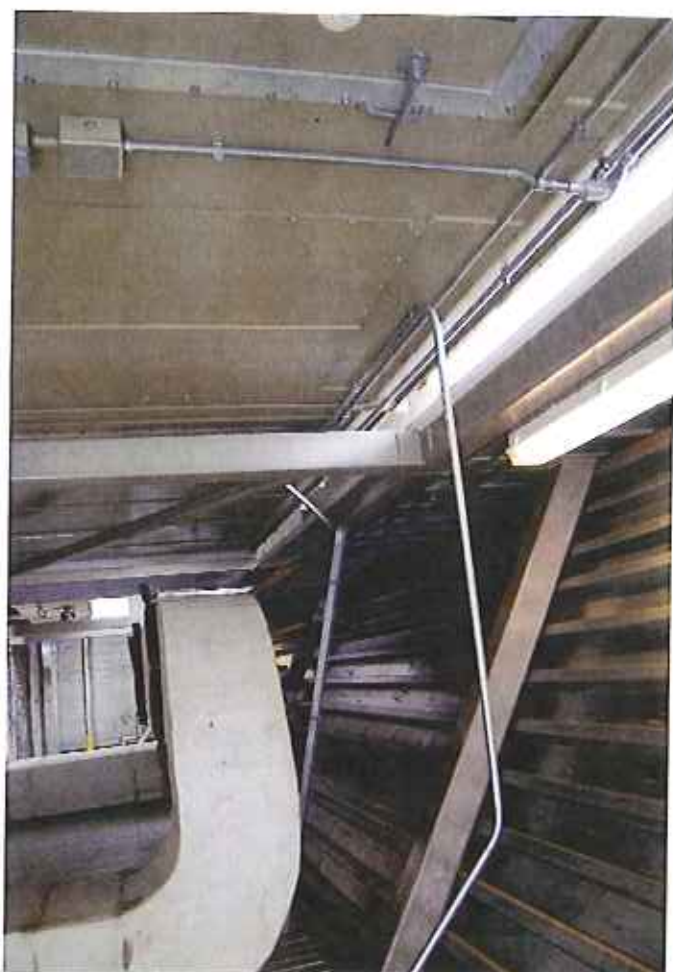
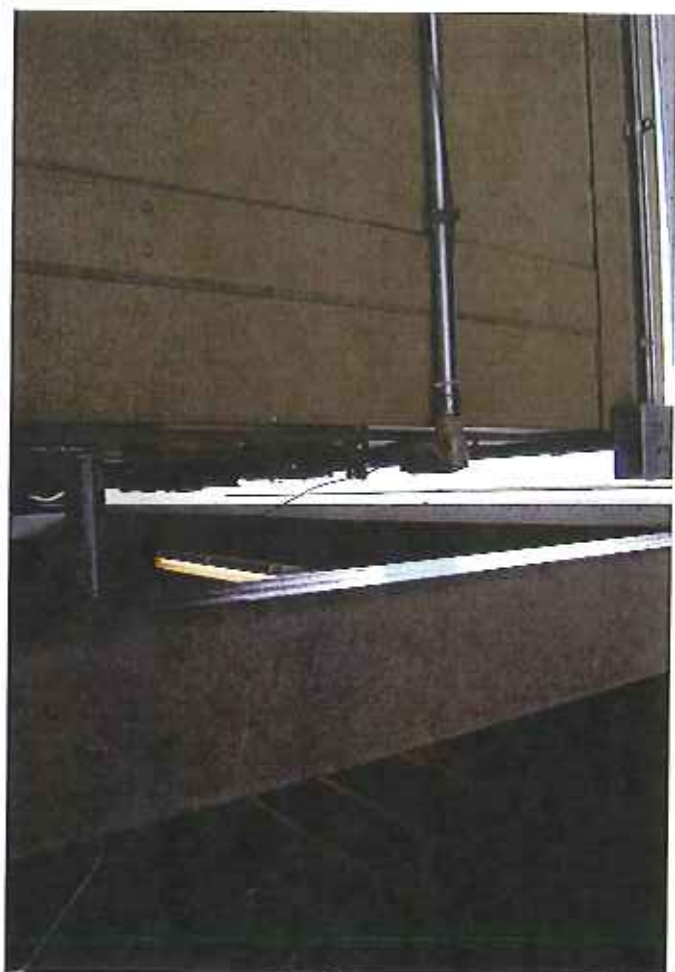
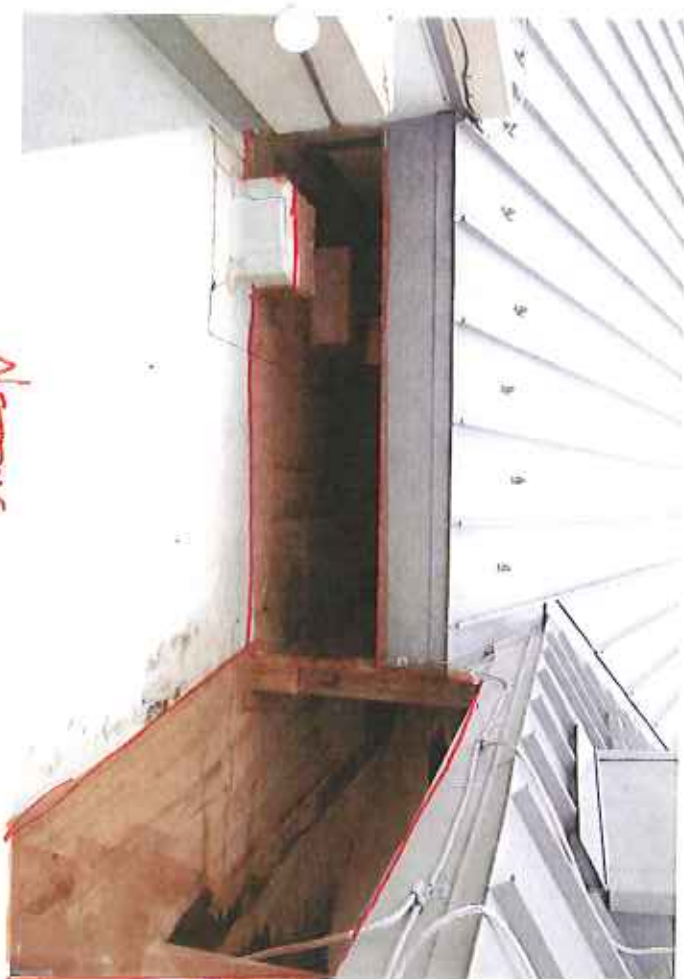
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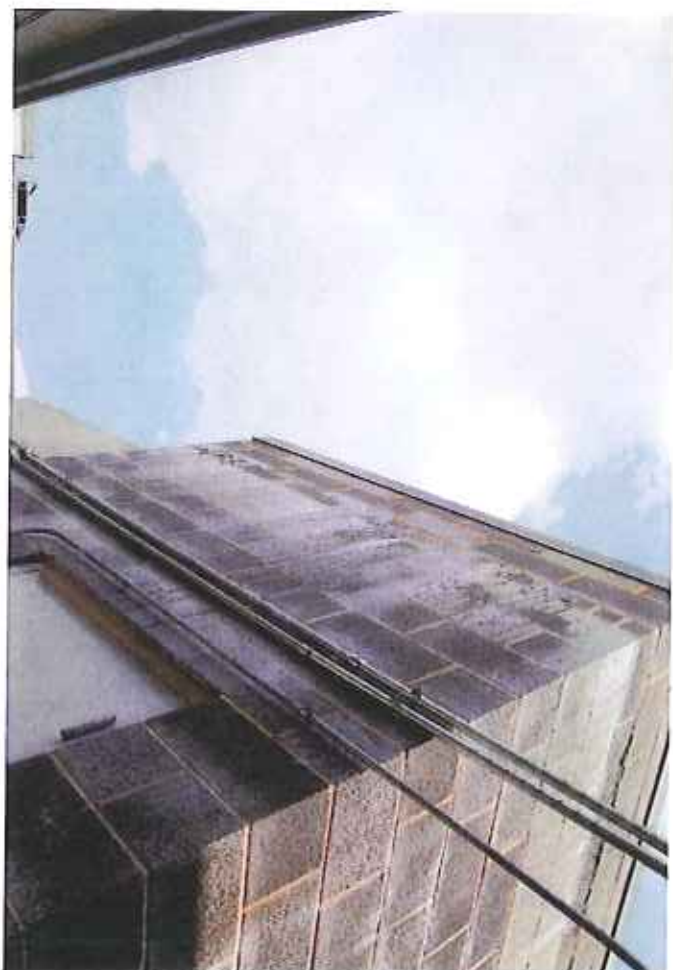
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SHEET NUMBER	A113

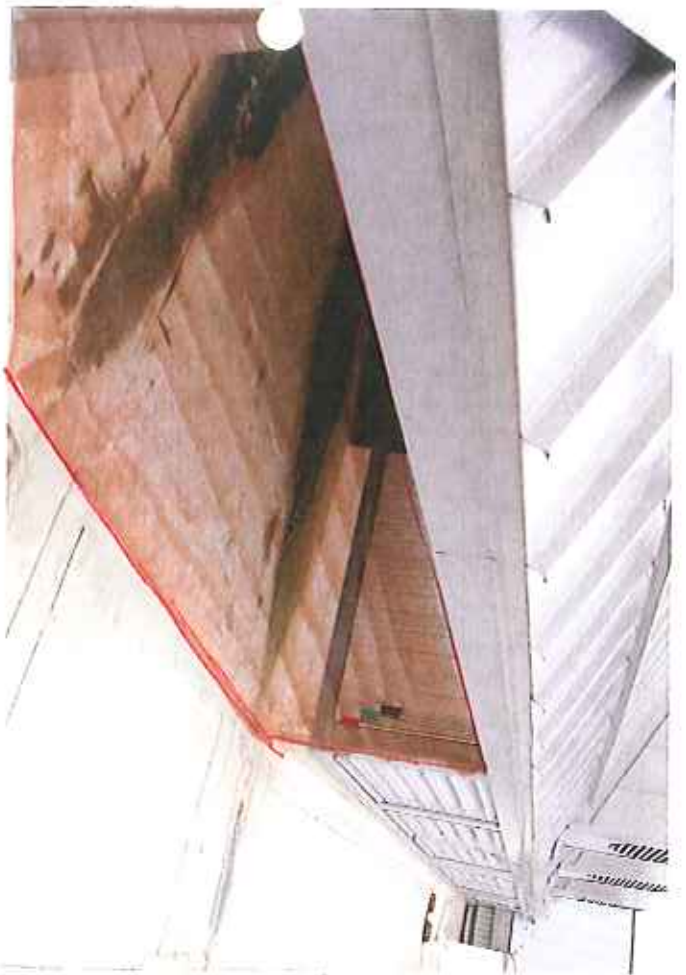




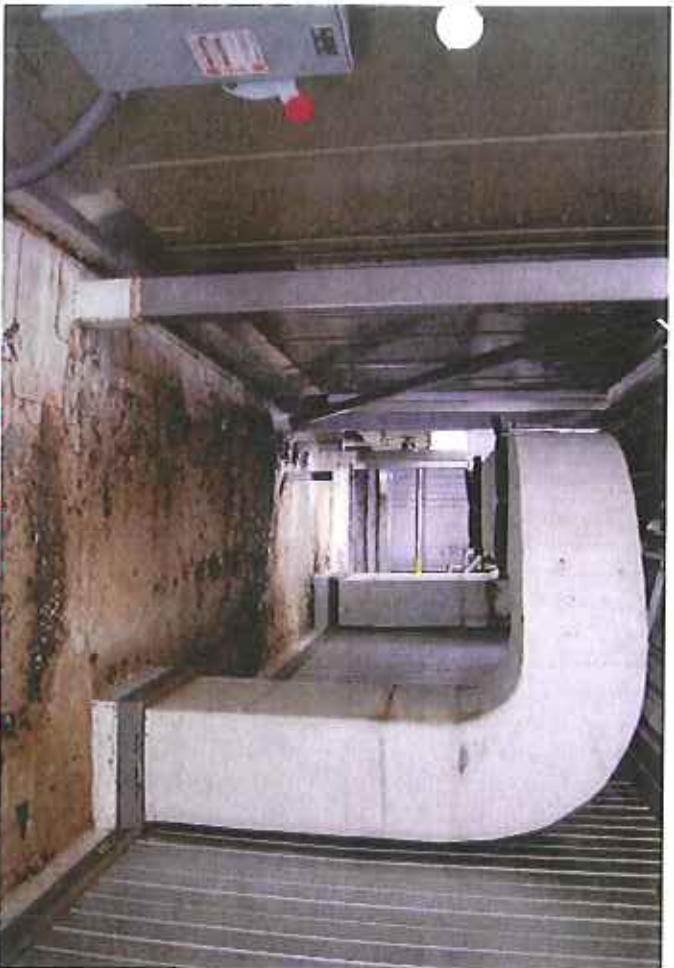
Waiting



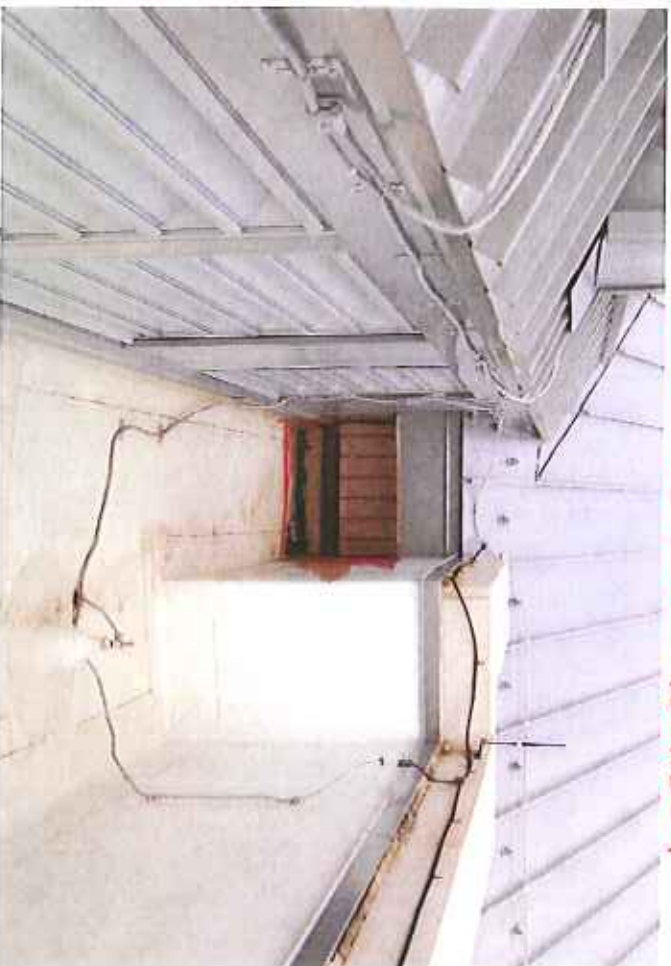


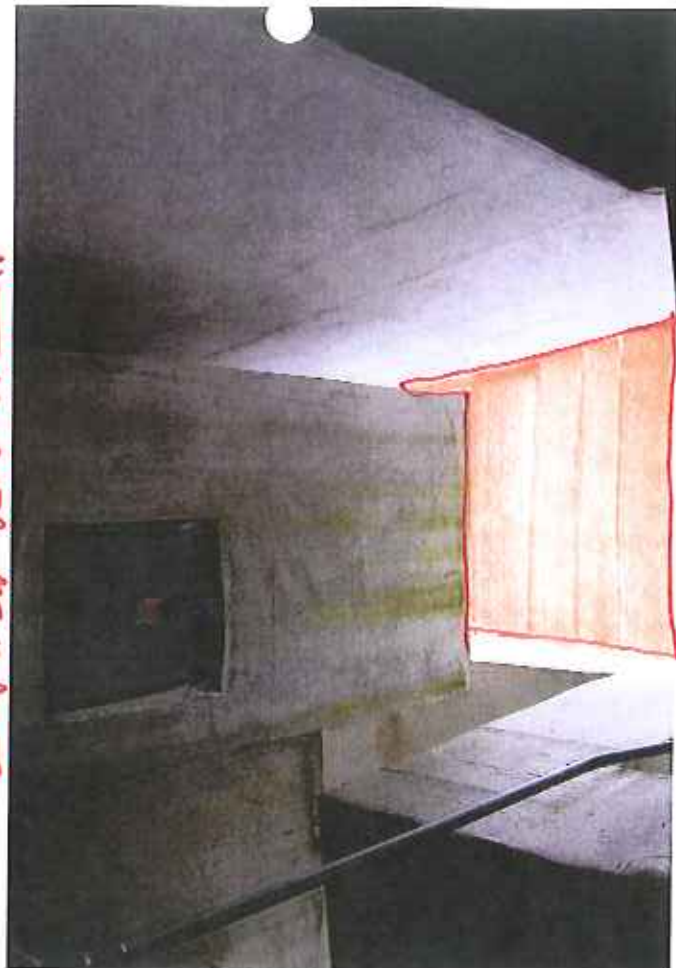


CLEAN AND ROUTINE NESTING

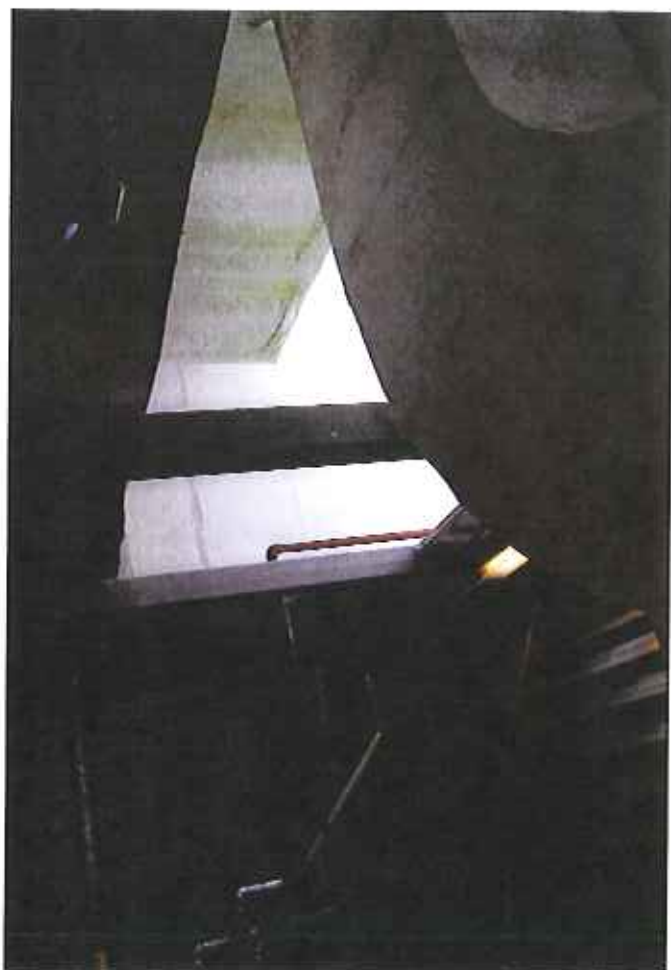
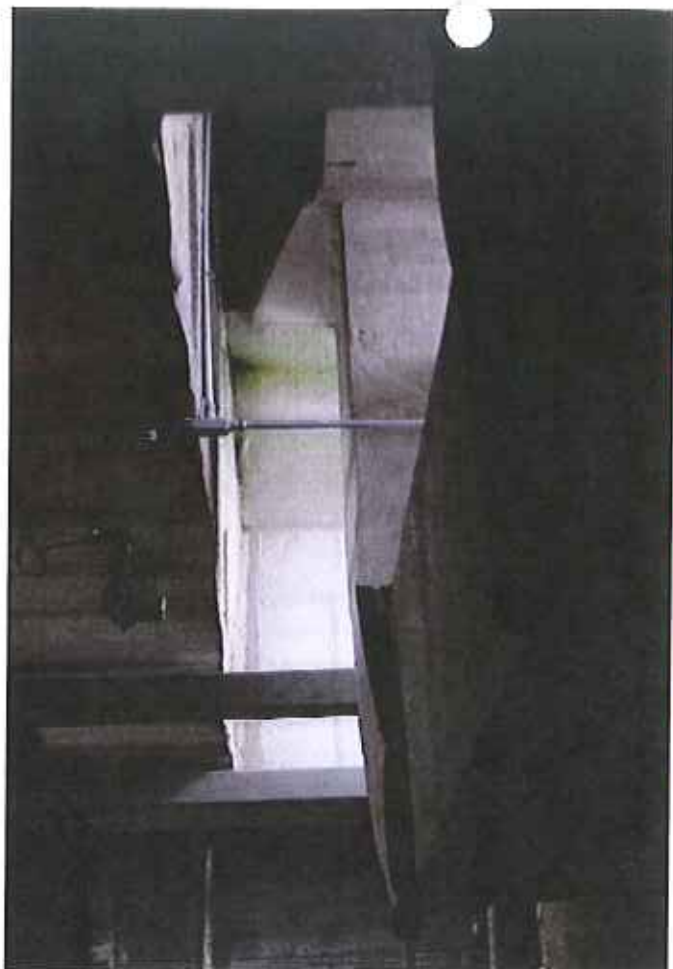


CLEAN AREA ABOVE



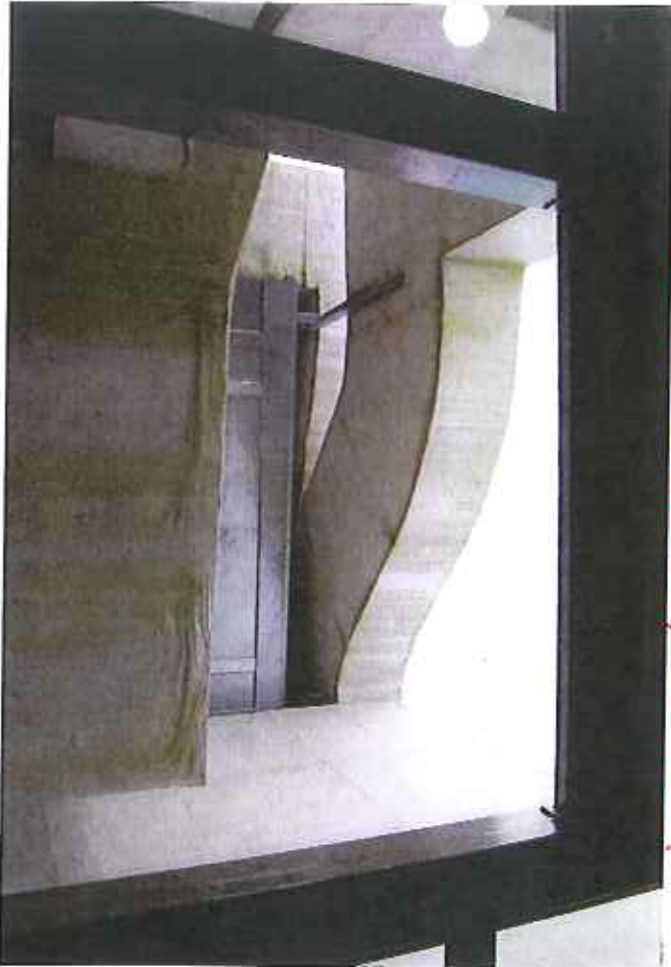


NETTIDA OVER MECH. DUCTS

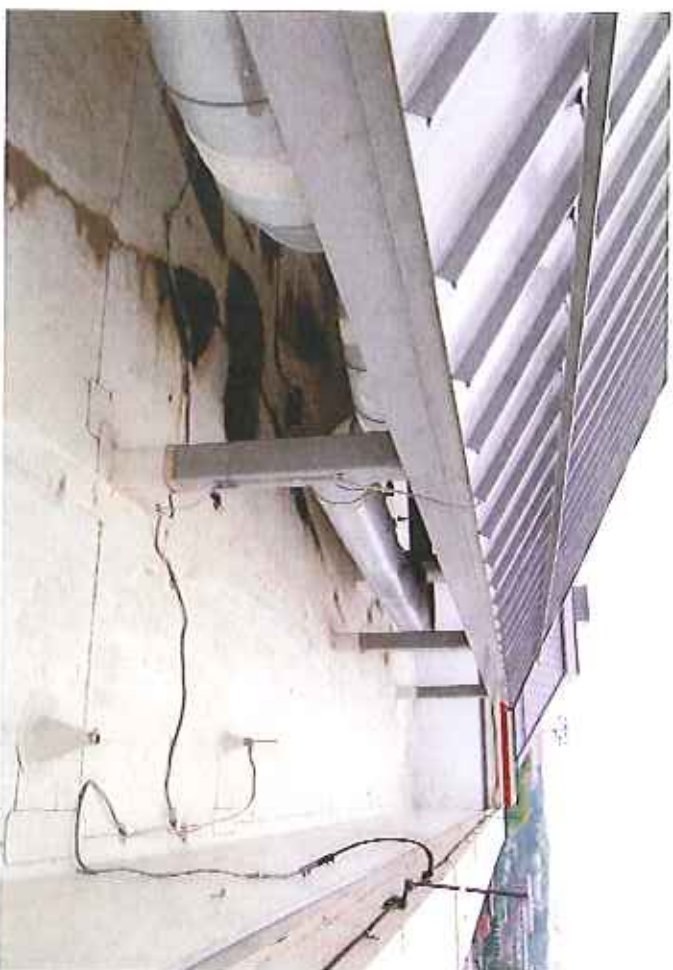




COVER ALL AREA w/ NETTING



REPAIR DUCT DAMAGED BY PILEDRIVERS

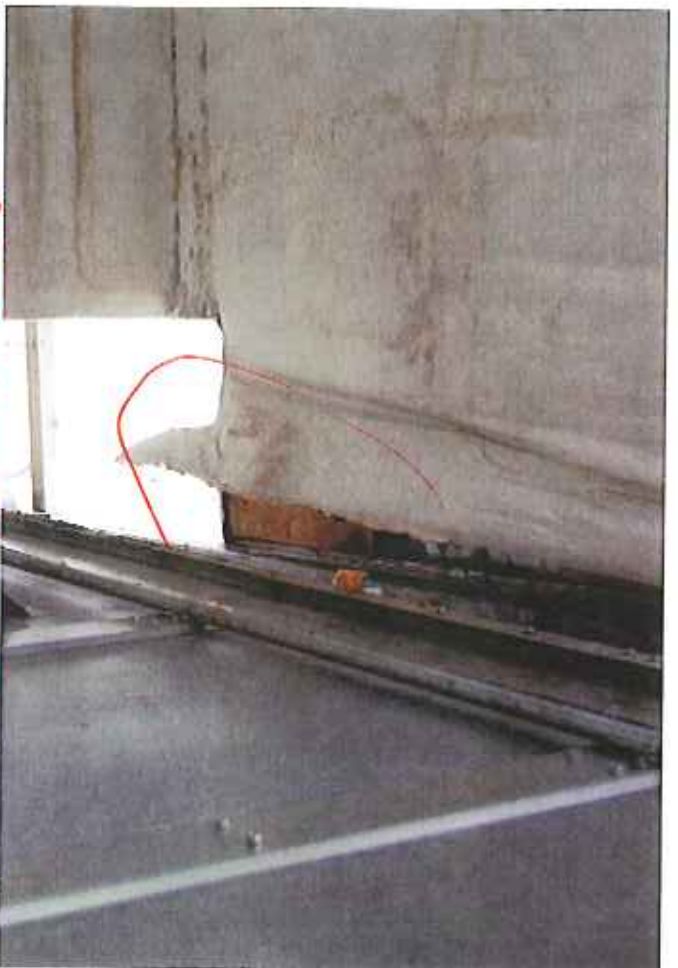


SECURE NETTING AROUND
PIPELINES

PROVIDE BIRD SPIKES



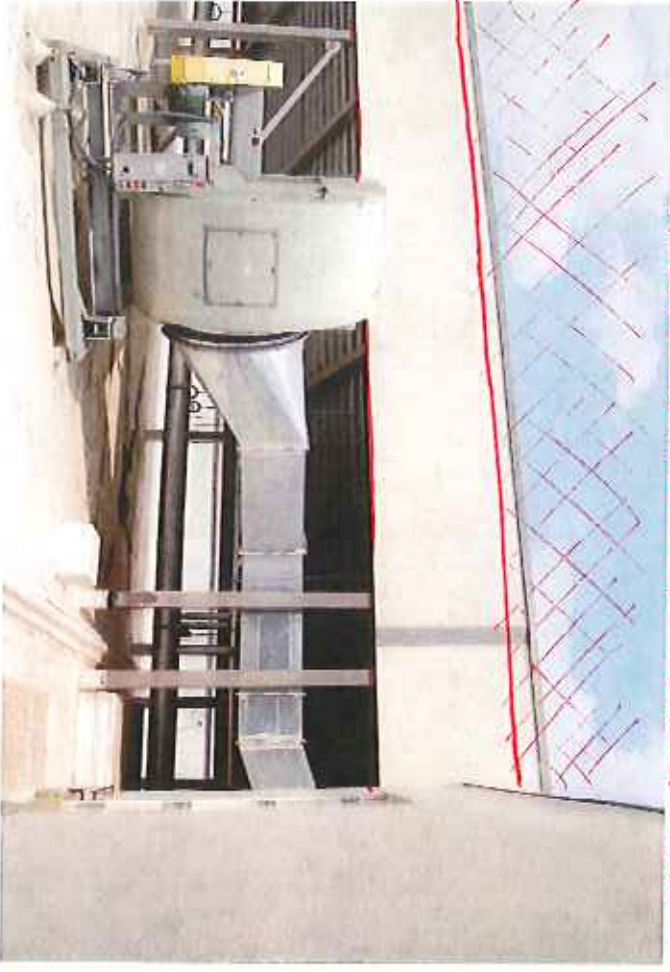
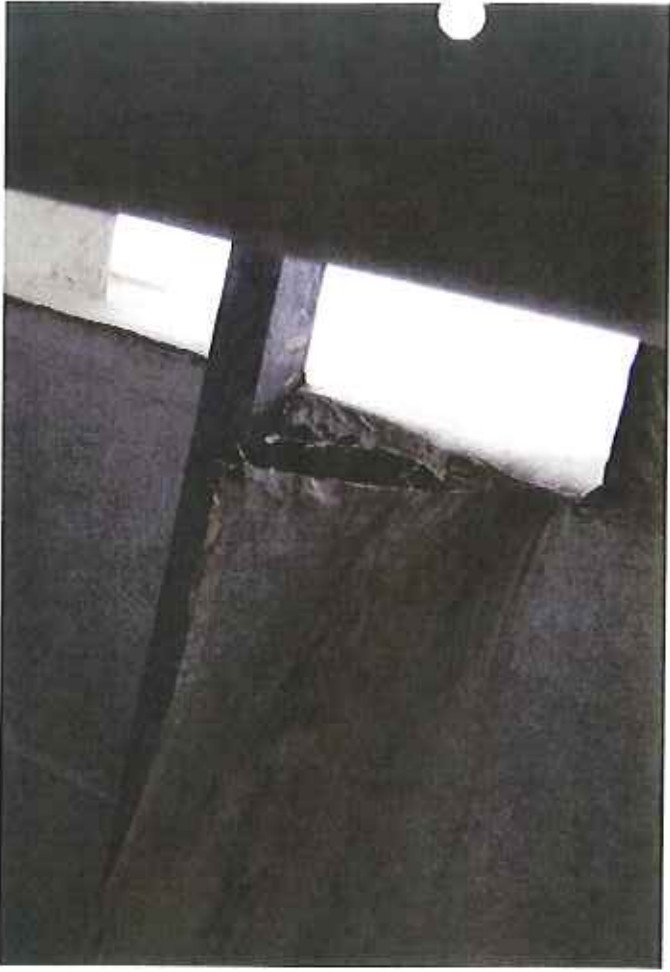
REPAIR DAMAGED DUCT



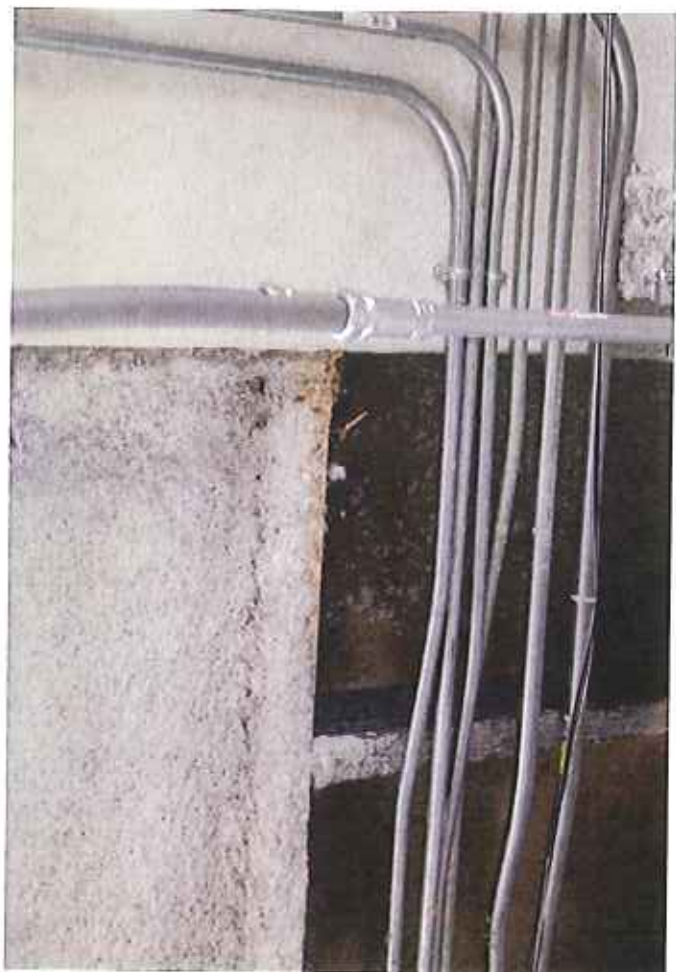
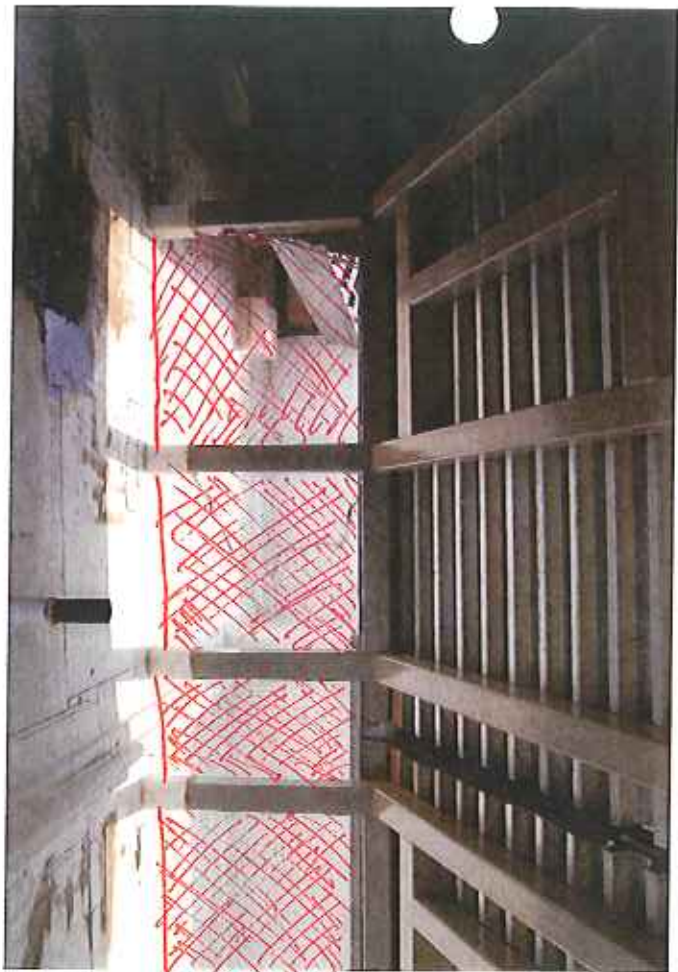
SECURE ALL AREAS IN MECH. Penthouse

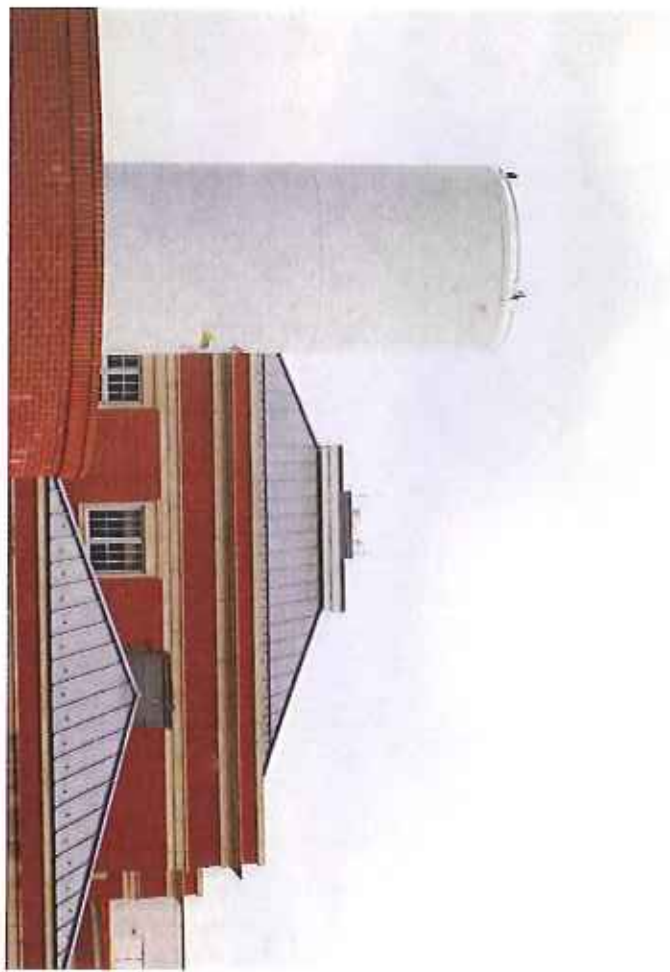






ATTACH NETTING ALONG HIGH PARAPET







September 2, 2008

BJAC, pa
Ben Ward
2108 South Blvd Suite 205
Charlotte, NC 28203

Dear Ben Ward,

Thank you for your interest in Nixalite's Bird Control Systems. Our architects file folder with current literature is enclosed.

Premium Nixalite strips are the most effective, long lasting, humane and dependable bird control available. They are fabricated entirely of high-grade stainless steel with 120 points per foot. These strips provide gap free protection that competitors can't equal. Effective for all birds, they are easily installed, require no electricity, chemicals, lights, or sound. When you choose Premium Nixalite you have chosen the superior, unequalled bird control for your clients.

Our line of bird netting includes and K-Net HT made from polyethylene and PollyNet made from polypropylene. Either type is perfect for architectural, agricultural and aquacultural bird exclusion. The lightweight PollyNet is ideal for seasonal use on gardens, orchards or where low visibility is needed.

Architectural services include: free planning and layout, special form design and fabrication for installing Nixalite on difficult surfaces. Specifications and product drawings are available on our web site www.nixalite.com.

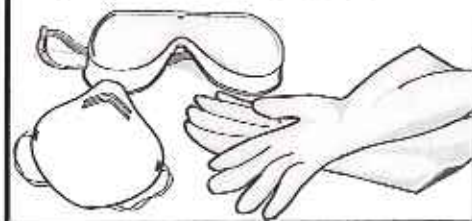
Sincerely,

William M Pratt
Enc:

General Surface Cleaning Instructions

The steps shown below outline the **general procedures** to follow when cleaning a surface in preparation of a bird control installation. These steps below outline the **minimum precautions that should be taken**. If heavy accumulations of bird waste is present, additional safety precautions will be required.

1. Wear a minimum of protective gloves, eye protection and a respiratory mask to guard against harmful bacteria that may be present in bird droppings.



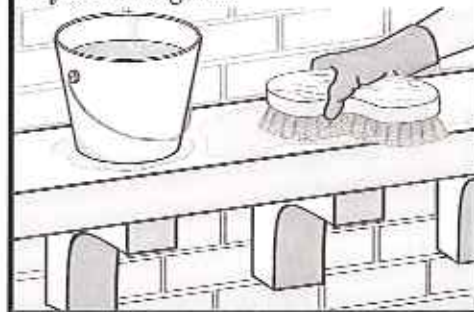
2. Treat the surface and debris with a disinfectant. Read and follow the directions on the container.



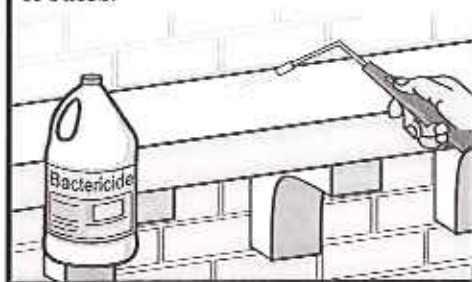
3. After treatment, remove the bird waste and debris from the surface. Follow all local regulation for disposal.



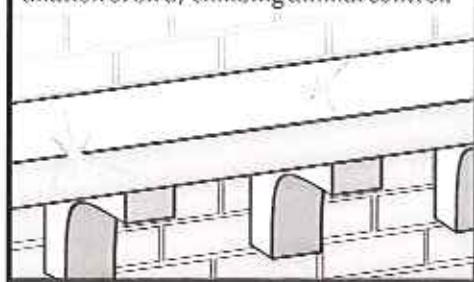
4. Wash the surface thoroughly to remove any remaining filth.



5. Re-treat the surface with the disinfectant to remove any remaining germs, bacteria, or odors.



6. The end result should be a clean, dry and odor free surface that is ready for the installation of bird/climbing animal control.



Visit our website at www.nixalite.com or contact
Nixalite at 800.624.1189 or fax 800.624.1196



Nixalite® of America Inc
1025 16th Ave, East Moline, IL 61244
P: 309.755.8771 F: 309.755.0077
Email: birdcontrol@nixalite.com

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Bird Droppings - More than just a mess!

Birds: Two points of view.

Most people regard birds as a necessary and pleasant member of the wildlife community. But there are those that consider these very same birds to be an environmental hazard. These people have dealt with the less attractive side of birds, their droppings.

Not just an eyesore.

Bird droppings are hazardous to your property. They are highly corrosive and can damage, dissolve or deteriorate nearly any building material. Wood, stone, concrete, marble, steel, copper, aluminum, and shingles are all susceptible. If allowed to accumulate, bird droppings can damage roofs, clog gutters, discolor paint, weaken I-beams

and structural steel, ruin cloth awnings, and short electrical equipment.

Hazardous to your health.

The most disturbing problem is the dangerous disease causing micro-organisms and parasites that are often found in bird droppings. Entomologist research has identified at least 60 transmittable diseases found in bird droppings, bird nests and on birds themselves. Ironically, it is often the behavior of the bird that contributes to the problem. Pest birds deposit huge quantities of droppings in one year. When combined with their habit of returning to the same roosts year after year, you can end up with conditions that are ideal for disease causing micro-organisms.

Inhalation and ingestion.

Diseases found in bird droppings are most often transmitted to humans by inhalation and ingestion. When bird droppings dry out, they turn into a powder like substance that, when disturbed, create small clouds of fine dust. When inhaled or ingested, the dust carries the contaminants in the droppings into the body.

Three common species.

The following tables provide a comprehensive list of transmittable diseases associated with the three most common pest bird species, pigeons, starlings and sparrows. These birds are widespread and are often the source for most pest bird problems.

Bacterial Diseases	Pigeons	Starlings	Sparrows
Kryspicoid	X	X	X
Fowl Typhoid	X		
Infectious Coryza	X		
Listeriosis	X		X
Paratyphoid	X	X	X
Pasteurellosis	X	X	
Pullorum Disease	X		X
Salmonellosis	X	X	X
Spirochetosis	X	X	X
Streptococcosis	X		
Tuberculosis	X		X
Ulcerative Enteritis	X		
Vibriosis			X
Yersiniosis	X		X

Mycotic Diseases	Pigeons	Starlings	Sparrows
Aspergillosis	X		
Blastomycosis	X	X	
Candidiasis	X		
Cryptococcosis	X		
Histoplasmosis	X	X	
Sarcosporidiosis			X

Protozoal Diseases	Pigeons	Starlings	Sparrows
American Trypanosomiasis	X		
Coccidiosis	X	X	X
Haemoprotozoans	X		
Leucocytozoonosis	X		
Toxoplasmosis	X	X	X
Trichomoniasis	X		X

continued on next page

Rickettsial & Chlamydial Diseases	Pigeons	Starlings	Sparrows
Chlamydiosis	X	X	X
Piroplasmosis	X		
Q Fever	X	X	

Viral Diseases	Pigeons	Starlings	Sparrows
Encephalitis	X	X	X
Eastern Equine Encephalitis	X	X	X
Fort Morgan Encephalitis			X
St. Louis Encephalitis	X	X	X
Venezuelan Encephalitis			X
West Nile Encephalitis	X		
Western Equine Encephalitis	X		X
Meningitis	X		
Newcastle Disease	X	X	X
Pox	X	X	X
Transmissible Gastroenteritis		X	X

Parasitic Cestodes	Pigeons	Starlings	Sparrows
Davaubea proglottina	X		
Hnilectina tetragona	X		
Taeniasis	X	X	X

Parasitic Nematodes	Pigeons	Starlings	Sparrows
Capillariasis (3 spp.)	X	X	
Dispharyxiasis	X	X	X
Eyeworm	X		
Gapeworm		X	
Tetramariasis (2 spp.)	X	X	X

Parasitic Trematodes	Pigeons	Starlings	Sparrows
Schistosomiasis	X	X	X
Brachylaemus communis	X		
Brachylaemus fuscatus	X		
Collyriculum faba		X	X
Cotylurus cornutus	X		
Cryptocoryle convexus	X		
Echinoparyphium parvum	X		
Echinoparyphium recurvatum	X		
Echinostoma revolutum	X		
Haplorchis pumilio	X		
Hypoderaeum conoideum	X		
Plagiorchis muris	X		
Postharmostomum gallinum	X		
Riberiola ondatrae	X		
Tamernaula bragat	X	X	X

Dermatosis	Pigeons	Starlings	Sparrows
Acariasis	X	X	X

Table data compiled from: *Health Hazards from Pigeons, Starlings and English Sparrows* by Walter H. Weber. Copyright 1979, Thompson Publications. Information reprinted by Nixalite - 07/08/05.

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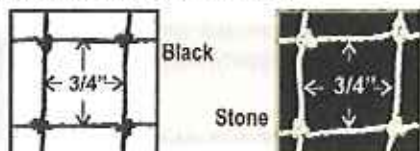
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K-Net HT Bird Netting

Unbeatable Strength, Unsurpassed Quality, Unmatched Value

K-Net HT Bird Netting

High strength, seamless construction and unbeatable prices make K-Net HT the perfect choice for all types of bird exclusion jobs. Now available in both black and stone (tan) colors.



K-Net Features

- 75 lbs/strand knotted breaking strength
- 12-ply high density polyethylene (HDPE)
- Seamless netting in black or stone
- UV, flame and abrasion resistant
- 3/4" square mesh keeps out most birds
- 293°F.(145°C.) melting point
- ISO 9001-2000 Quality Management Standards

Complete specifications on Back of This Page

K-Net HT Versatility

K-Net HT strength and durability make it ideal for tough bird exclusion jobs. Perfect for **architectural, industrial, aquacultural** and **agricultural** bird exclusion jobs. The seamless 3/4" square mesh keeps out all but the smallest of pest birds.

K-Net HT Netting Sizes

25 feet wide and 25, 50 and 100 feet long
50 feet wide and 25, 50 and 100 feet long

Both black and stone K-Net are available in the same sizes. Each piece of K-Net is **seamless**.

Installation Hardware

Nixalite offers a complete line of bird netting hardware and accessories to help you securely fasten the K-Net HT Bird Netting to nearly any surface.

Steel, Masonry, Wood, Sheet Metal and more.

For more information on our bird netting hardware and accessories, contact Nixalite of America Inc.

The Toughest Netting In Bird Control

K-Net HT is perfect for long term use in harsh conditions.

Architectural



- Canopies, Bell towers
- Pediments, Columns
- Bridges, Stadiums
- Retail Stores...

Industrial



- Communications
- Utility Substations
- Oil Tank Net Covers
- Aircraft Hangars

Agricultural



- Fish Ponds, Aviaries
- Plant / Tree Nurseries
- High Density Orchards
- Large Area Enclosures

K-Net HT Is Easier To Work With And Goes Up Faster!

Some bird netting is packaged in a 'rope' or collapsed mesh form. This may save space but it takes valuable time and considerable effort to stretch this 'rope' net out to its advertised size.



Other nets come in a collapsed mesh or 'rope' form. This takes time & effort to stretch out to size.



K-Net netting is a true square mesh net. It is shipped in a folded bundle that you unfold to width and length.

K-Net HT Bird Netting is the best netting you can buy for all types of bird exclusion jobs. Refer to the 3-part specifications on back or contact Nixalite of America Inc.



Nixalite® of America Inc
1025 16th Avenue, East Moline, IL 61244
Experts In Bird Control Since 1950

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Email: birdcontrol@nixalite.com
Web: www.nixalite.com

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K-Net HT Bird Netting

Short Form Specifications: CSI Division 10290 - Bird Control

PART 1 - GENERAL

1.1 - SYSTEM DESCRIPTION:

K-Net HT Bird Netting is constructed of black, abrasion, UV, flame and rot resistant, high density polyethylene (HDPE). The 3/4" (1.9cm) square mesh keeps out all but the smallest of pest birds. All knots are steam set.

Bird Netting Hardware provides a solid foundation that quality, long lasting installations require. ABC/Nixalite offers netting hardware to fasten all brands of bird netting to all types of surfaces.

Surface Cleaning System includes surface disinfectants and deodorizers to neutralize potentially hazardous bird or animal waste and prepare surface for installation.

1.2 - QUALITY ASSURANCE

A. Installer must obtain, review and understand all K-Net HT and bird netting hardware installation guidelines.

B. Installer must be familiar with the proper installation procedures for the K-Net HT bird netting and the installation hardware.

1.3 - SUBMITTALS

A. Manufacturer's literature including K-Net HT specifications and installation guidelines for the K-Net HT, netting hardware and specified surface cleaning system.

B. Sample of the K-Net HT Bird Netting not less than 6" square (15.2cm square).

1.4 STORAGE & HANDLING

Provide storage to keep all netting and netting hardware shipping boxes dry, clean and undamaged. Do not stack or place other packaging or objects on the K-Net HT boxes.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

Nixalite of America Inc 1025 16th Ave,
East Moline, IL. 61244; U.S.A.
Ph: 800.624.1189 or 309.755.8771

Fax: 800.624.1196 or 309.755.0077

E-mail: birdcontrol@nixalite.com

Web: www.nixalite.com

ABC Advanced Bird Control

A division of Nixalite of America Inc
PO Box 727, East Moline, IL 61244, U.S.A.

Ph: 888.212.8682 or 309.755.4708

Fax: 309.755.1865

E-mail: info@abcbirdcontrol.com

Web: www.abcbirdcontrol.com

2.2 K-NET HT BIRD NETTING

Material: Black or stone color, high density polyethylene . UV, flame and rot resistant.

Construction: Seamless knotted netting.

Standards: Must meet ISO 9001 2000 Quality Management Standards.

Strands: 12 ply (4x3) strands with 75lb. (33.9kg) knotted breaking strength.

Mesh size: 3/4"(1.9cm) sq. steam set knots.

Widths: 25'(7.6m), 50'(15.2m). Lengths: 25'(7.6m), 50'(15.2m), 100'(30.4m).

Thermal & Physical Properties:

Melting point: 293 degrees F.

Remains flexible at very low temperatures.

Specific gravity: 0.96, does not absorb water.

2.3 BIRD NETTING HARDWARE

A. Installer to contact manufacturer for up-to-date information and recommendations for hardware applications and procedures.

B. Manufacturer can recommend the hardware that best suits the netting application.

PART 3 - EXECUTION

3.1 - INSPECTION

A. Visually inspect the surfaces that will receive the netting hardware and all areas that will end up behind or inside the installation. Note any damaged surfaces or incomplete construction that could compromise the bird netting installation.

B. Note all areas, surfaces or objects that may require maintenance or periodic re-

placement after the bird netting is installed (i.e. lights, electrical equipment, etc.). Plan on using the appropriate netting hardware to allow access after installation.

C. Note any objects or conditions that could damage the installed bird netting. Plan on installing the K-Net HT in such a manner as to avoid these conditions.

3.2 - PREPARATION

A. Field Measurements: Verify dimensions of the areas to be enclosed. Make sure you have sufficient quantity of bird netting, netting hardware and surface cleaning products to properly install the K-Net HT Bird Netting.

3.3 SURFACE CLEANING

A. All surfaces to be clean, dry and free of obstructions before bird control is installed.

3.4 - INSTALLATION

A. Install the bird netting hardware as recommended by manufacturer. General order of installation: install perimeter and support hardware; attach bird netting to installed hardware; install access or additional support hardware as specified.

B. Install K-Net HT as recommended by the manufacturer. If necessary cut the netting to fit the area. If multiple pieces are needed, join the pieces together with the recommended seam fastening hardware.

C. Install K-Net HT to avoid contact with machinery, vehicles, extreme heat, tree branches, etc. Make necessary adjustments to keep the netting a sufficient distance from these objects or conditions.

D. Finished K-Net HT installation to be taut, free of wrinkles, gaps and openings.

3.5 ADJUSTMENTS / CLEANING

A. Remove debris and waste materials from project site.

B. Inspect finished installation. Make any adjustments needed to conform to manufacturer's K-Net HT installation guidelines.



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Experts In Bird Control Since 1950

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Web: www.nixalite.com

Nixalite® Netting & Mesh Comparison Table

Quickly compare Nixalite bird netting and wire mesh products. Choose the product that is right for your application.

Net & Mesh Category	 K-Net HT Bird Netting	 Bird-Net Bird Netting	 PollyNet Bird Netting	 Bare Hand Vineyard Net	 Stainless Wire Mesh
Works for	All Birds	All Birds	All Birds	All Birds	Birds & Animals
Made of	Polyethylene	Polyethylene	Polypropylene	Polyethylene	Stainless, Galvanized
Mesh Size	3/4" Square	MANY	1/2", 3/4"	3/4" Sq. & diamond	1/2" square
Widths (ft)	25 & 50 ft	25, 50, 100 ft	14, 17 ft	17, 28 ft	4 ft
Lengths (ft)	25, 50 & 100	25, 50, 100	MANY	MANY	100 ft
Durability	Longest Lasting	Long Lasting	Long Lasting	Up to 6 Seasons	Lasts a Lifetime
Key Details	Strongest multi-strand netting	Durable & discreet multi-strand netting	Strength with economy	Protects all types of row crops	Strong, durable, looks great
Equivalent	NONE	Available	Available	Available	Available

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Tensioned Cable Estimate Worksheet

The following estimating standards will help you find the proper quantities of cable and cabling hardware needed when installing Nixalite® bird netting with a tensioned perimeter and support cable system. **Before using this worksheet** you must have accurate dimensions of the areas to be protected with bird netting. For planning steps, see the Planning A Bird Net Installation brochure from Nixalite®.

Net Cable:

250 foot spool = 225' of installation.

500 foot spool = 450' of installation

NOTE: Coverage is always less than spool capacity due to extra cable used for cable connections.

NOTE: include any support cable footage in your totals. Nixalite does not break spools or cut cable to length.

Maximum continuous cable length:

25 feet with small turnbuckles.

50 feet with medium turnbuckles.

75 feet with large turnbuckles.

Connection Hardware:

Hardware used to fasten the cable to corner hardware and turnbuckles.

Hardware needed for each connection:

Ferrules: 2 each. For cable runs UP TO 25 feet long.

Wire Rope Clamps: 2 each. Optional for cable runs less than 25'. **REQUIRED** for cable runs from 25' to 50'. Nixalite recommends clamps for all connections.

Thimbles: 1 per loop connection. Recommended for ferrule connections. **REQUIRED** for wire rope clamp connections.

Turnbuckles:

There is ALWAYS one turnbuckle per run of cable. NEVER go around a corner or curve without adding a turnbuckle to the estimate.

Note: Add 1 Turnbuckle for every support cable.

Maximum Distance Between Turnbuckles:

Small Turnbuckles: 25 feet.

Medium Turnbuckles: 50 feet.

Large Turnbuckles: 75 feet.

Corner Hardware:

Maximum Spacing: 50 feet.

NEVER go around a corner or curve without adding additional corner hardware. Match the installation surface to the proper hardware.

Side Note: Add 2 corner hardware sets for every support cable.

Wood: Large screw eyes.

Masonry: Large eye bolts with screw anchors.

Sheet Metal: Large screw eyes (note 1).

Steel & Iron: Large eye bolts with hex nuts.

Cable Guide Hardware:

Used to guide the cable between the corner hardware. Choose guide hardware that best suits the application.

Maximum Spacing: 2 feet.

Wood: EZClip, small screw eyes, and sidewinders.

Masonry: EZClip, cotter pin/anchor, small eyebolts with screw anchors, and sidewinders.

Sheet Metal: EZClip, small screw eyes 1, and sidewinders (note 1).

Steel & Iron: EZClip, small eye bolts with hex nuts, sidewinders, flange clips.

Net Rings:

2,500 count boxes. We do not break boxes.

Recommended Net Ring Usage:

Cable attachment: 16 rings per foot (1 net ring for each 3/4" netting mesh).

Seams: 32 rings per foot (16 per side of seam).

2 foot zippers: 64 rings (32 per side of zipper)

4 foot zippers: 128 rings (64 per side of zipper)

8 foot zippers: 256 rings (128 per side of zipper)

Note 1: Usage depends on thickness of sheet metal. Thick sheet metal may require an eyebolt with nut.

Need help selecting your cable hardware? Contact Nixalite!

www.nixalite.com Ph 800.624.1189 Fx 800.624.1196



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Tensioned Cable Installation Example

The information below provides the basic procedures for installing a tensioned cable system. This example shows an all steel surface. Your application may be different. If you have any questions contact ABC/Nixalite.

General Procedures

1. Install Corner Hardware.

Drill 9/32" dia. hole for corner hardware eyebolt. Secure with the supplied hex nut.

2. Install Cable Guide Hardware.

Install cable guides 24" o.c. Use Sammy Socket to seal the example sidewinder cable guides properly. Align cable guide holes for cable.

3. Fasten Cable to Eyebolts.

Each connection - 2 rope clamps, 1 thimble.

Push a thimble into the eyebolt. Make a loop by passing the cable through the eyebolt. Make sure there is 3" of extra cable.

Apply the first rope clamp 2" from eyebolt and lightly tighten the nuts. Apply the second rope clamp as close to the eyebolt as possible. Lightly tighten nuts. Take up slack in cable and torque all rope clamp nuts to 7.5ft.lbs.

4. Fasten Cable to Turnbuckles.

Run the cable through all cable guides before fastening the cable to the turnbuckle.

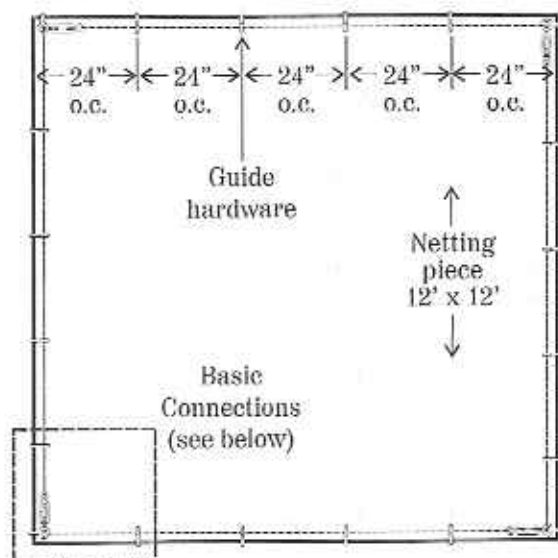
Open the turnbuckle to its maximum safe length. Push a thimble into the eyelet of the turnbuckle. Make a loop by passing cable through turnbuckle eye. Make sure there is 3" of extra cable. Apply the first rope clamp 2" from eyelet and lightly tighten the nuts. Apply second rope clamp as close to the eyelet as possible. Lightly tighten nuts.

Adjust the length of the cable so the hook end of the turnbuckle will go through the corner eyebolt then torque all rope clamp nuts to 7.5ft.lbs.

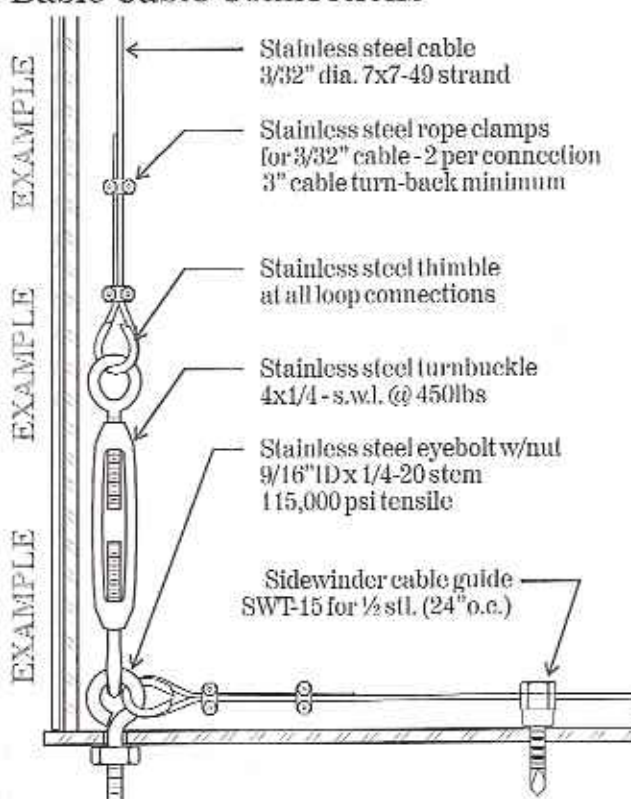
5. Apply load and Re-torque all clamps!

After the netting has been attached to cable with net rings, the installation is tensioned by tightening the turnbuckles. In tension, multi-strand cables will stretch in length and shrink in diameter (small amounts). This can lead to loose rope clamps. Be sure to re-torque all rope clamp nuts to 7.5ft.lbs.

Example Area (10' x 10')



Basic Cable Connections



For more information, visit our website at www.nixalite.com
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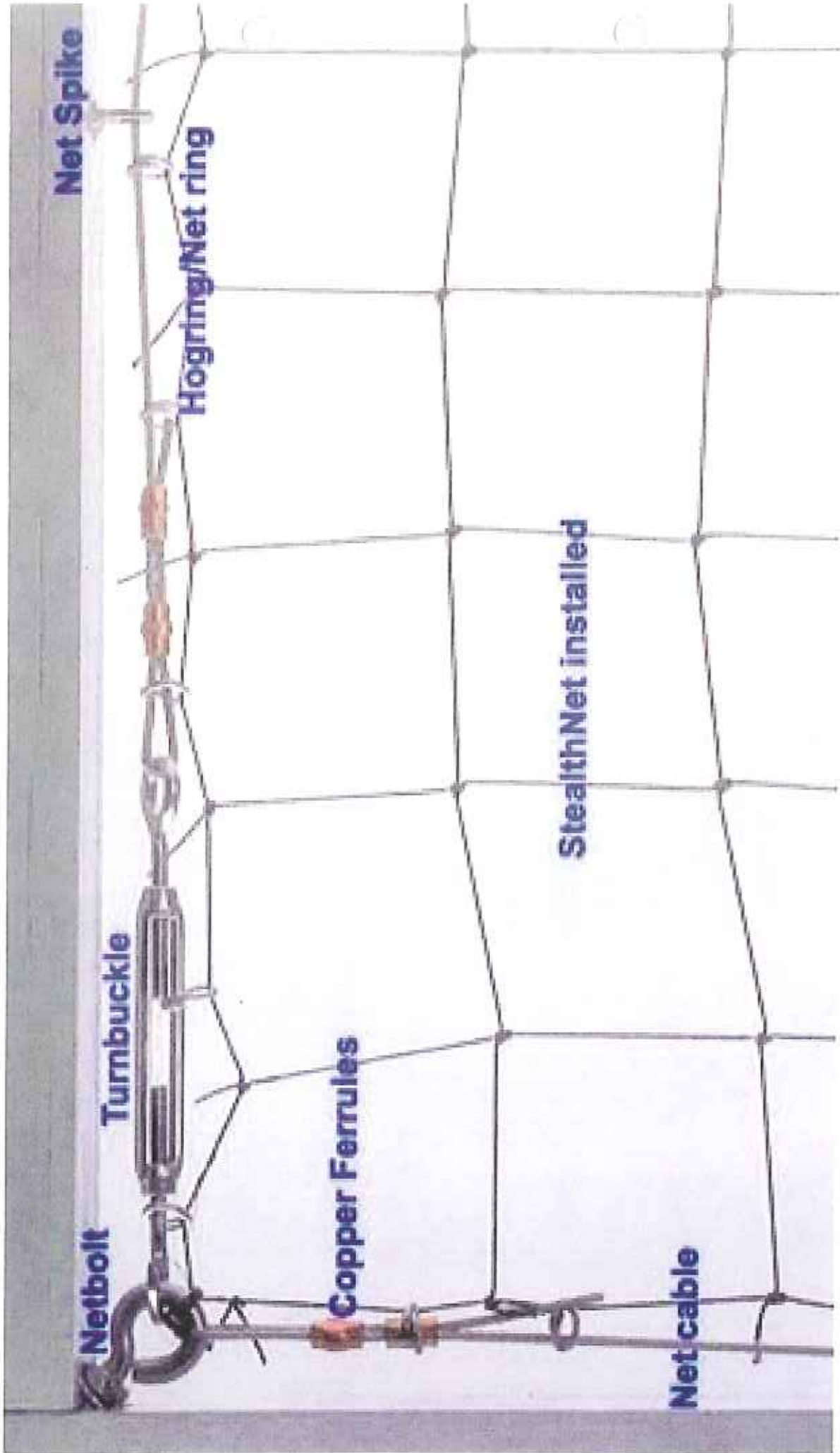
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Net Spike

Hogring/Net ring

StealthNet installed

Turnbuckle

Copper Ferrules

Net cable

Netbolt



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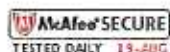
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Estimate for Netting Hardware

Estimating for Netting Hardware

One of the keys to a successful bird netting installation is how well the netting is fastened. The following details will help you find the proper quantities of netting hardware needed based on your installation area dimensions. **NOTE:** Each netting installation is different and some of the estimating guidelines may not apply to your application. If you have questions or need help, please [Contact Nixalite](#).

BEFORE YOU CONTINUE: make sure you have accurate measurements for the netting installation area. If you have not measured for your bird netting, go to [Planning Your Bird Netting Installation](#) and use the guidelines to accurately measure for your netting installation. You will also need to know the type of netting hardware you want to use. If you are not sure, [Contact Nixalite](#).

TIP: It will be easier to keep track of the hardware you will need if you make a simple drawing of your netting installation area. Apply the dimensions you recorded and mark the locations where the netting hardware is needed.

Estimating for Poly Hardware



PolyClips: for perimeter fastening.

- Flat Surfaces: space 12" o.c. along flat perimeter.
- Curved Surfaces: space 6" o.c. along curved perimeter.
- Add 1 Poly Clip for each corner or change in netting direction.



Twist Locks: Joining netting together at seams and cuts.

- Overlap seams: space 6" o.c. along seams. **TIP:** stagger along both sides of seam.
- Cuts, patches, panels: space 3" o.c. along edges of any cut or patchwork.



Not Ties: multi-purpose fastener, common applications listed below.

- Overlap seams: space 6" o.c. along seams. **TIP:** stagger along both sides of seam.
- Cuts, patches, panels: space 3" o.c. along edges of any cut or patchwork.
- Overhead support: space 12" o.c. along overhead support (pipes, cables, etc).



Quick Tie Chains: overhead support.

- Overhead support: space 12" o.c. along overhead support (pipes, cables, etc).



Poly Cord: multi-purpose fastener, common applications listed below.

- Overlap seams: Weave the cord in and out of the netting on both sides of seam.
- Overhead support: space 12" o.c. along overhead support.
- **Not for perimeter support!**

Estimating for Tensioned Cable Hardware



Net Cable: Spool yield is always less than capacity due to cable used in loop connections.

- Estimate for full 250' or 500' net cable spools.
- A 250 foot spool should yield about 240' of cable installation.
- A 500 foot spool should yield about 480' of cable installation.
- TIP: don't forget to include cable footage for support cables (if needed).



Loop Connection Hardware: Items used to fasten the cable to the corner hardware and turnbuckles.

Hardware needed for each cable loop connection:

- Ferrules: (optional) 2 each. For cable runs from 0 to 25' long.
- NOTE: The LOCOLock Ratchet Crimper is required for ferrule installation.
- Wire Rope Clamps: (recommended) 2 each. Optional for cable runs from 0 to 25' long. REQUIRED for cable runs over 25' long.
- Thimbles: 1 per connection. Recommended for ferrule connections. REQUIRED for wire rope clamp connections.



Turnbuckles: always use one turnbuckle per run of cable. Never go around corners without adding a turnbuckle.

Maximum distance between turnbuckles:

- Small turnbuckles: 25'.
- Medium turnbuckles: 50'.
- Large turnbuckles are available. Custom hardware may be needed - call for info.



Corner Hardware: anchors the cable installation to the surface. Supports the entire weight of the netting installation.

Maximum Spacing: 50'

- Use 1 at each corner and for each change in direction of the cable installation.
- Use 1 at all cable breaks (where the cable stops and starts again).
- Add 2 for each support cable (one at each end).



Cable Guide Hardware: Installed between the corner hardware to keeps the net cable close to surface.

Cable Guide Spacing:

- Straight cable runs: every 24".
- Curved cable runs: every 12".



Net Rings: fastens the netting to the cable, zippers to the netting and seals up netting seams.

Recommended Ring Usage:

- Cable to netting: 16 rings per foot (1 ring per mesh for 3/4" net).
- Sealing overlap seams: 32 rings per foot (16 rings / foot on both sides of seam).
- Installing 2 foot zippers: 64 rings (32 rings each side of zipper).
- Installing 4 foot zippers: 128 rings (64 rings each side of zipper).
- Installing 8 foot zippers: 264 rings (128 rings each side of zipper).

Let Nixalite of America Inc help you plan your netting installation!

If you provide detailed information about your bird netting application, Nixalite will recommend a netting system and provide a material quotation. It is critical that your information is accurate and complete.

Where to go from here...

To install your bird netting, go to the [Netting Installation Guide](#)



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Bird-Net Knotted Bird Netting

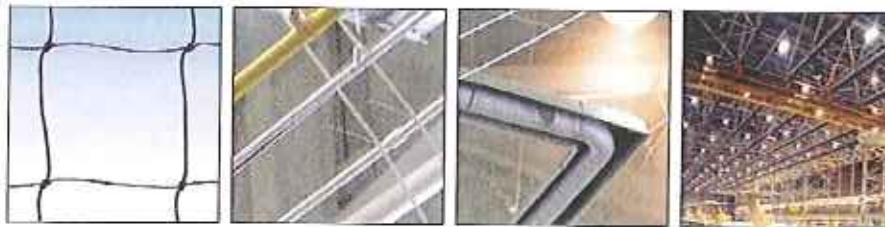
Bird-Net Knotted Bird Netting

Seamless construction, economy and versatility make Bird-Net Bird Netting perfect for all types of bird exclusion projects. Made from 6-ply polyethylene, Bird-Net is abrasion, rot, flame and UV resistant. It comes in several mesh and net sizes with custom sizes available. The 3/4" and 2" mesh nets are available in standard black or stone color. The 1-1/8" mesh net is available in standard black.

[Bird-Net Bird Netting Brochure and short form specifications \(PDF\)](#)

[Order Bird-Net Bird Netting NOW!](#)

[Go to Bird-Net Bird Netting 3-Part Specs NOW!](#)



Bird-Net Knotted Bird Netting Economy, Value & Versatility

- Made of UV resistant, 6-ply high density polyethylene (HDPE).
- Each strand has a 52 lb. breaking strength.
- Most sizes available in black or stone colors.
- Bird-Net is abrasion, UV, flame and rot resistant.
- Stocks net sizes of 25, 50 and 100ft widths and 25, 50 and 100ft lengths.
- All pieces are seamless and borderless for clean edges and easy perimeter fastening.
- Available in 3/4", 1-1/8" and 2" square mesh sizes.
- Installs with all types of netting hardware systems.

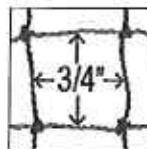
For more detailed information, download the [Bird-Net Bird Netting Brochure \(PDF\)](#)

Please allow 2 - 3 weeks for Bird-Net delivery.

Extra handling fees may apply. Contact Nixalite for more information.

Available Sizes:

Bird-Net Bird Netting is available in 25, 50 and 100ft foot widths and 25, 50 and 100 ft lengths. Some sizes shipped by TRUCK.

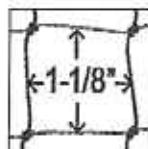


Bird-Net Bird Netting 3/4" Square Mesh

Bird-Net Knotted Bird Netting - 3/4" Square Mesh available in black and stone color. Economical and durable knotted netting for small and large bird species.

Item#	Description	Price	Quantity
BNet B 3/4 25x25	BirdNet Black 3/4" Mesh 25' x 25' Bird Net	\$175.00	
BNet B 3/4 25x50	Bird Net Black 3/4" Mesh 25' x 50' Bird Netting	\$350.00	
BNet B 3/4 25x100	Bird Net Black 3/4" Mesh 25' x 100' Bird Netting	\$700.00	
BNet B 3/4 50x50	BirdNet Black 3/4" Mesh 50' x 50' Bird Net	\$700.00	
BNet B 3/4 50x100	BirdNet Black 3/4" Mesh 50x100 Bird Net	\$1,400.00	
Bnet B 3/4 100x100	BirdNet Black 3/4" Mesh 100 x 100 Bird Net	\$2,800.00	

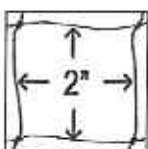
BNet S 3/4 25x25	BirdNet Stone 3/4" Mesh 25 x 25 Bird Net	\$175.00	
BNet S 3/4 50x50	BirdNet Stone 3/4" Mesh 50 x 50 Bird Net	\$700.00	
BNet S 3/4 50x100	BirdNet Stone 3/4" Mesh 50 x 100 Bird Net	\$1,400.00	
BNet S 3/4 100x100	BirdNet Stone 3/4" Mesh 100 x 100 Bird Net	\$2,800.00	



Bird-Net Knotted Bird Netting 1-1/8" square mesh

Bird-Net Knotted Bird Netting - 1-1/8" Square Mesh available in standard black color. Economical and durable knotted netting for medium to large bird species.

Item#	Description	Price	Quantity
BNet B 1-1/8 25x25	BirdNet Black 1-1/8 Mesh 25 x 25 Bird Net	\$162.50	
BNet B 1-1/8 50x50	BirdNet Black 1-1/8 Mesh 50 x 50 Bird Net	\$650.00	
BNet B 1-1/8 50x100	BirdNet Black 1-1/8 Mesh 50 x 100 Bird Net	\$1,300.00	
BNet B 1-1/8 100x100	BirdNet Black 1-1/8 Mesh 100 x 100 Bird Net	\$2,600.00	



Bird-Net Knotted Bird Netting 2" Square Mesh

Bird-Net Knotted Bird Netting - 2" Square Mesh available in black and stone color. Economical and durable knotted netting for large bird species only.

Item#	Description	Price	Quantity
BNet B 2 25x25	BirdNet Black 2" Mesh 25 x 25 Bird Net	\$100.00	
BNet B 2 50x50	BirdNet Black 2" Mesh 50 x 50 Bird Net	\$400.00	
BNet B 2 50x100	BirdNet Black 2" Mesh 50 x 100 Bird Net	\$800.00	
BNet B 2 100x100	BirdNet Black 2" Mesh 100 x 100 Bird Net	\$1,600.00	
BNet S 2 25x25	BirdNet Stone 2" Mesh 25 x 25 Bird Net	\$100.00	
BNet S 2 50x50	BirdNet Stone 2" Mesh 50 x 50 Bird Net	\$400.00	
BNet S 2 50x100	BirdNet Stone 2" Mesh 50 x 100 Bird Net	\$800.00	
BNet S 2 100x100	BirdNet Stone 2" Mesh 100 x 100 Bird Net	\$1,600.00	

Bird-Net Bird Netting Applications

Used for all bird exclusion projects including architectural, aquacultural and agricultural applications.

Use 3/4" square mesh nets for all post bird species.

Use 1-1/8" and 2" square mesh nets for larger bird species.

Netting Hardware

A comprehensive line of net hardware is available to fasten Bird-Net Bird Netting to wood, masonry, stone, sheet metal, steel, iron, and more. For more information, go to [Netting Hardware](#) page.

Where to go from here..

For Net Planning Guidelines, go to [Net Planning Guide](#) page.

For Installation Guidelines, go to [Installing Bird Netting](#) page.

For Installation Examples, go to the [Installation Showcase](#) and select Bird Netting Showcase page.

For K-Net HT CSI/CSC specifications, go to the [Architect's Info Center](#) page.

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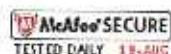
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Bird Netting Installation Guide

Installing the Bird Netting

The following information offers basic procedures for the installation of the bird netting. It is not all inclusive, instead it covers the steps that most netting installation require. There are many different ways to effectively install bird netting, but the goal should always be the same; no gaps, openings, wrinkles or excessive sag in the finished netting installation.

NOTE: Each netting installation is different and some of the guidelines may not apply to your application. If you have questions or need help, please [Contact Nixalite](#).

☒ Checkpoint! Before continuing, you must know...

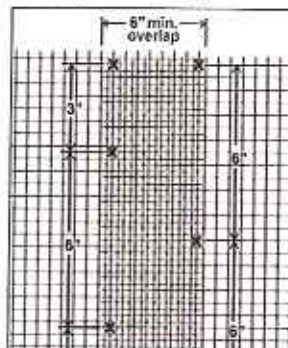
1. The type of bird netting you will be installing. If you are not sure, review the [Net Planning Guide](#) for recommendations or go to the [K-Net](#) or [PollyNet](#) pages.
2. What kind of netting hardware you will be using. If not, review the [Net Planning Guide](#) or the [Netting Hardware](#) pages.
3. If installing the netting with a tensioned cable system, the cables should be installed and ready to receive the netting. If not, review the [Install Cable Hardware](#) page.
4. If installing the netting with Poly Hardware, you must know how each piece of hardware is installed. Review the steps outlined on the [Install Poly Hardware](#) page first.

Cutting the netting;

Both PollyNet and K-Net bird netting can be cut to the desired size and shape with a good pair of scissors - no special cutting tools are needed.

Before you cut, double check your dimensions. Make sure that you have allowed extra netting for perimeter fastening and overlap seams (6" min. for both). Always leave the piece of netting bigger than what you will actually need.

Joining Nets Together at Overlap Seams;



For PollyNet: Overlap the netting pieces a minimum of 6". Install the poly hardware seam fasteners every 6" on both sides of the seam for its full length. Twist Locks, Net Ties or Poly Cord are recommended for sealing PollyNet seams. **DO NOT** use metal net rings to seal PollyNet seams.

K-Net HT: Overlap the netting pieces a minimum of 6". Use the stainless steel Net Rings to seal the seam. Install net rings every 6" on both sides of the seam for its full length. The poly hardware seam fasteners can also be used for K-Net seams. Follow the spacing guidelines provided for the poly hardware.

Perimeter Fastening:



For PollyNet: Roll the edges of the netting 2 or 3 times when installing PollyNet with PolyClips.

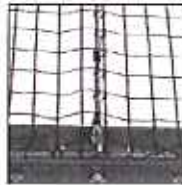


For K-Net: Use Net Rings to fasten the K-Net to the perimeter cables. PolyClips can be used with the cables if desired.

Interior Support:



Overhead Supports: Locate and utilize overhead pipes, beams, trusses, etc to help support the interior netting areas (away from the perimeter). Fasten to the overhead support items as often as possible. We recommend using the Net Ties, Poly Cord, Quick Tie Chains or the Net Savers for support hardware.



Support Cables: Used when there is minimal overhead support. Bird netting should NOT be allowed to run more than 50 feet without support cables. We recommend installing support cables every 25 feet. For K-Net use Net Rings to fasten the netting to the cable. For PollyNet, use the Net Ties.

Fitting Around Obstructions:



Objects hang lower than the installed netting: **DO NOT** cut large pieces out of the netting. To fit the netting around objects (such as lights), make simple slits or X cuts just big enough to fit the object. If the obstruction is close to an outside edge, make a straight cut from the edge to the obstruction. If it's in the middle of the installation area, cut a slit or X in the net below the object. Pass the object through the mesh and seal the netting back together above/behind it. Use seam hardware to seal up the slit or cuts around the object.



Fit netting around objects:

Square/Rectangular objects along the perimeter (a column). Cut a simple "T" in the net that is the same width and depth as the column (see drawing). Use the excess netting of the "T" to fasten to the perimeter hardware (perimeter hardware must follow the shape and direction of the outside edges).

Round objects along or close to the perimeter (large pipe). Cut an "X" big enough to fit the diameter, then make a slit from the "X" to the closest edge of the netting. Use the excess netting of the "X" to fasten to the perimeter hardware (perimeter hardware must follow the shape and direction of the outside edges).

Additional Installation Methods:



Common construction materials can be used to install bird netting. This type of installation is constructed and customized to fit on-site. For a detailed page on these alternate methods of installation, load the [Additional Netting Installation Methods](#) page. (PDF)

There are many different ways to install bird netting but the goals of the installation should always be the same: no gaps, openings, wrinkles or excessive net sag. For more information on other installation methods Contact Nixalite.

Let Nixalite of America Inc help you plan your netting installation!

If you provide detailed information about your bird netting application, Nixalite will recommend a netting system and provide a material quotation. It is critical that your information is accurate and complete.

Where to go from here...

To view or purchase Nixalite's bird netting hardware, go to [Bird Netting Accessories and Tools](#).

To view or purchase Nixalite's bird netting, go to either [PollyNet Bird Netting](#) or [K-Net HT Bird Netting](#).

To view the CSI specifications for any of our bird netting, go to [Architect's Info Center](#)

Nixalite® Glue Clip & Adhesive

Glue Clip Installation Instructions



If the supplied mounting hardware cannot be used to fasten Nixalite's bird spikes to the installation surface, a Glue Clip and Adhesive installation can be done. Glue Clips can fasten either the Nixalite Premium Barrier Models or the E-Spike Economy Spikes to the surface. Please read and follow the surface preparation and application steps recommended by the adhesive manufacturer. The following procedures are the same for wood, masonry, sheet metal, steel, etc. **NOTE:** If using Nixalite's adhesive, download the adhesive product sheet from www.nixalite.com or contact Nixalite for a free copy.

Spacing Glue Clips

Use the Glue Clip Spacing Table to determine how many Glue Clips you will need to fasten the spike strips.

Sharing Glue Clips:

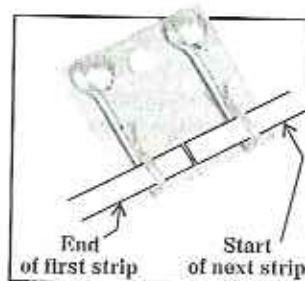
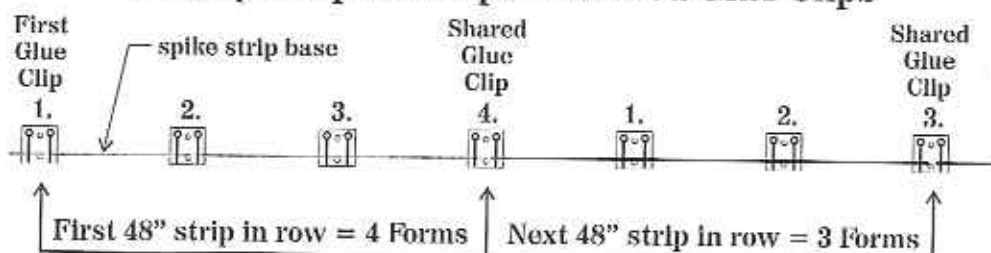
Glue Clips use a double mounting hardware design that allows one clip to secure the ends of two bird spike strips.

Example: The first 48" spike strip in a row uses 4 Glue Clips. Every 48" spike strip after that requires only 3 Glue Clips. This is because of 'sharing'. One clip ends one strip and begins the next strip in a row.

Glue Clip Spacing Table

Spike Strip Length	Qty Clips	Spacing
First 48" strip in a row	4 Glue Clips	16" o.c.
Every 48" strip after	3 Glue Clips	16" o.c.
First 24" strip in a row	3 Glue Clips	12" o.c.
Every 24" strip after	2 Glue Clips	12" o.c.
First 16" strip in a row	2 Glue Clips	16" o.c.
Every 16" strip after	1 Glue Clip	16" o.c.
First 12" strip in a row	2 Glue Clips	12" o.c.
Every 12" strip after	1 Glue Clip	12" o.c.

Example: Spike strips & shared Glue Clips



Example: Shared Glue Clip
Wires of spike strip omitted for illustration purposes

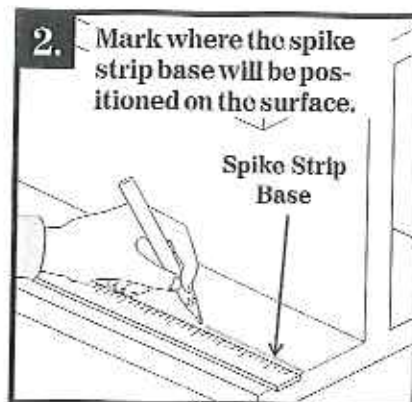
Installing Glue Clips

1. Clean thoroughly

Make sure the installation surface is clean, dry and free of oil, grease, dust or dirt. Follow the adhesive manufacturer's recommendations for surface preparations.

2. Mark the Nixalite centerline.

With a straight edge, mark the position of the bird spike base line on the surface. If you are not sure where this will be, call Nixalite for assistance.



- continued on back -

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3. Determine the spacing

Use the Glue Clip Spacing Chart to determine the dimensional spacing between each Glue Clip. Mark the surface, as indicated by the chart, along the spike strip base line.

4. Position the Glue Clip

All Glue Clips come with 2 mounting clips pre-installed. The spike strip base snaps into the "hook" end of the mounting clips. Position the Glue Clip so the line for the spike strip base line runs through the middle of the 'hook' of both mounting clips. Draw around the Glue Clip to mark its position.

5. Apply adhesive

Apply adhesive to the installation surface where the Glue Clip will be positioned. Then apply adhesive to the back of the Glue Clip. Let both sit for about 10 minutes (or as recommended by the adhesive manufacturer).

6. Push together

Push the Glue Clip with the adhesive, into the surface adhesive, until the adhesive squeezes out through the 2 holes in the Glue Clip.

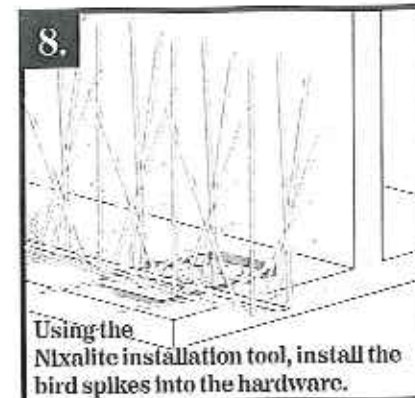
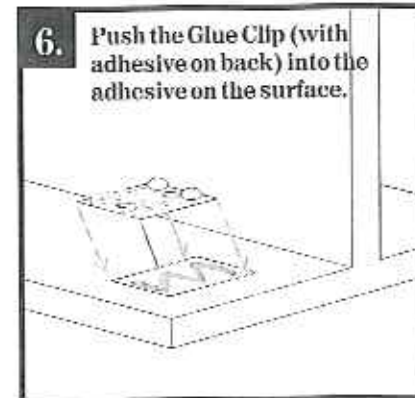
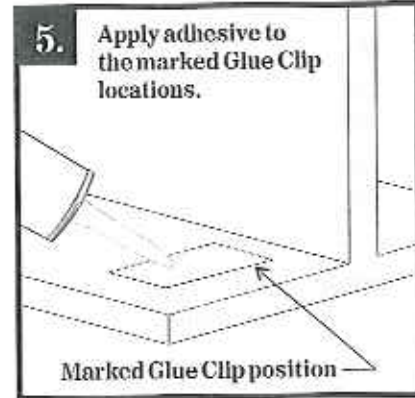
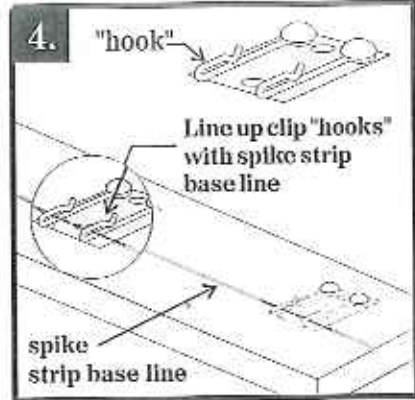
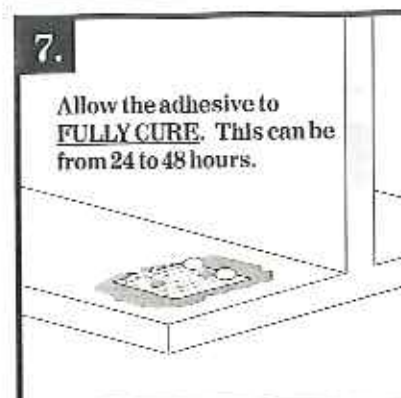
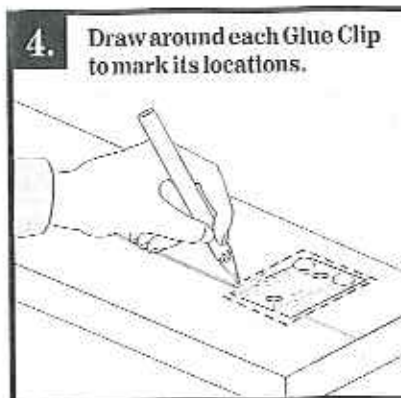
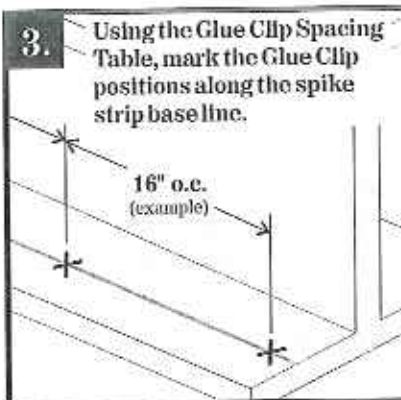
7. Let adhesive cure

Allow the adhesive to **FULLY CURE** before installing the spike strips. This can be from 24 to 48 hours. Refer to the adhesive manufacturer's recommended cure times.

8. Install spike strips

Install the Nixalite Premium Barrier Models or E-Spike bird spikes into the mounting clips provided on the Glue Clip.

If you will be using Nixalite's adhesive, download the product page from www.nixalite.com or call Nixalite for a free copy.



For more information, visit our website at www.nixalite.com
or contact Nixalite at 800.624.1189 or fax 800.624.1196



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E-Spike Economy Bird Spike

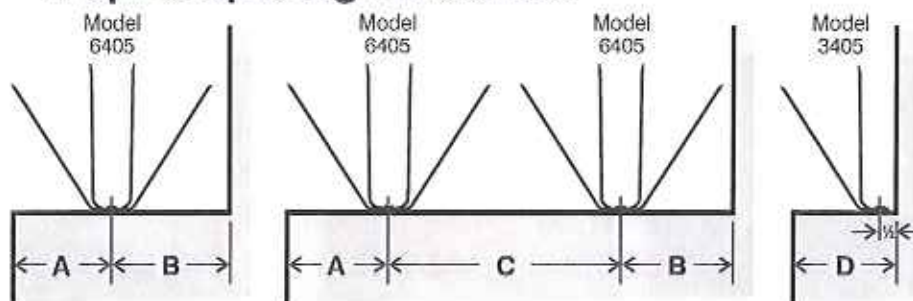
E-Spike Spacing Guidelines

Model 6405

- A - 3" max. to edges
- B - 4" max. to walls
- C - 7" max. between

Model 3405

- D - 3" max. coverage



Installing E-Spike

E-Spike is designed for **pigeons** and **seagulls only**. Do not use to deter small birds or heavy bird infestations. For total surface control, use **Nixalite's Premium Bird Barrier models**.

Prepare the surface

Clean the surface thoroughly. It must be clean, dry and free of bird waste. Repair any damage there might be to the installation surface.

Lay out the spike strip positions

Use the Estimating and Spacing Guidelines to determine where each spike strip will be placed on the surface. Mark each spike strip location.

Fit the strip before fastening

Make sure each spike strip fits the surface properly before fastening it. Follow these important details when installing:

Make sure that the spike strips **overhang the ends of the surface at least 1/2"**.

Make sure the **tallest wire** is the **first and last wire** in any row of spike strips.

Do not allow gaps where two strips meet end-to-end **OR** where spike strips meet a wall or object.

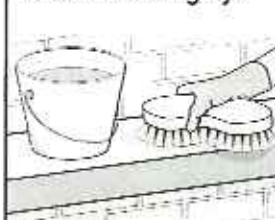
Fastening E-Spike Strips

If fastening with adhesive, follow the adhesive manufacturer's application instructions printed on the adhesive container.

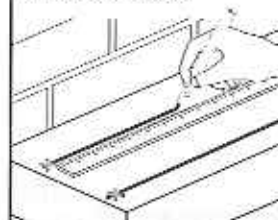
If installing with the optional hardware, contact Nixalite or view/print the hardware instructions at www.nixalite.com.

Make sure all spike strips are **securely fastened** to the installation surfaces.

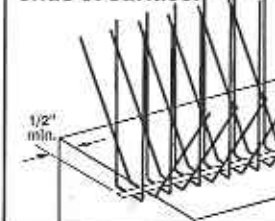
Clean the installation surface thoroughly!



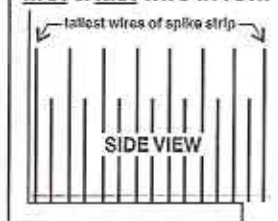
Mark strip locations on the surface.



Extend strip 1/2" over ends of surface.



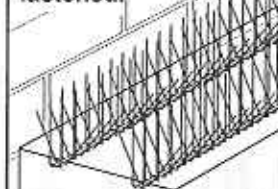
Tallest wire to be the first & last wire in row.



Run spikes flush to walls & objects. Never leave gaps.



Installed spikes to be straight and securely fastened.



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