

Board Action Item

To: Dr. Kyle Heath, Superintendent
CC: David Johnson
From: Barry Hipp
Date: 11/4/2016
Re: Central Office Roof Replacement

Purchase greater than \$25K, for a regular board meeting Monday, November 14, 2016

The purpose of this memo is to request board approval to replace the roof on the Central Administration Office utilizing CBS Roofing Services (TIPS Vendor) for a total cost of **\$642,500** which includes a \$30,000 owner's contingency. The current roof system has had multiple failures and has reached the end of its useful life and is in need of replacement. The existing roof is a Modified Bitumen system which is made from asphalt coated with granules and has seams that are heated to melt the asphalt together and create a seal. There is a second gravel roof under the modified.

The proposed roofing system is the Hyload Roofing System which uses the exclusive formula of DuPont™ Elvaloy® KEE roofing resins in combination with coal tar pitch and dispersed polyester fibers for a single ply membrane roof system. The Hyload system is a very durable long life roof four ply system and extremely hail resistant. **Please see attached Engineering report provided by Haag Engineering.**

The roof system was engineered and specifications were developed utilizing Armko Industries, Roofing Consultants and Engineers.

Warranty – 20 year NDL “No Dollar Limit” warranty for materials, workmanship and hail. **Please see attached warranty.**

- Covers ponding water.
- Covers greases and fats coming out onto the roof from kitchens.
- Covers up to 4” Hail

Two qualified cooperative vendors provided quotes:

- **CBS Roofing Services (TIPS Purchasing Cooperative) \$642,500**
- Tri-Lam Roofing (TIPS Purchasing COOP) \$685,000

Existing Roof:



**CONTRACTOR PROPOSAL FORM
CLEBURNE INDEPENDENT SCHOOL DISTRICT
ADMINISTRATION BUILDING
PROJECT NO. 20161011-30**

The purpose of this proposal is for Cleburne ISD to complete the replacement of the roof system at Administration Building, utilizing a Cooperative Purchasing Network, which operates and serves as a procurement option for Governmental Agencies in accordance with any or all of the statutes.

The proposal by the contractor shall be submitted to Mr. Barry Hipp, Cleburne ISD, 505 N., Ridgeway, Suite 100, Cleburne, TX, 76033, by Thursday, October 22, 2016, 2:00 P.M. Questions regarding the specifications should be directed to Tim Green, 214.802.1207.

The contract for the project will be between Cleburne ISD and the Roofing Contracting Company.



CONTRACT DOCUMENTS: Having examined the Proposal, Contract, General Instructions, Materials, Execution, and Drawings for Project No. 20161011-30 and conditions for said roofing replacement work, and having examined the premises and circumstances affecting the work, the undersigned offer:

OFFER: To furnish all labor, material, tools, equipment, transportation, bonds, insurance certificates, all applicable taxes, incidentals, and other facilities, and to perform all work for the said roofing replacement for the following:

BASE PROPOSAL - Work shall include tearing off existing roof down to the deck, provide and install new specified CTEM roof system meeting required R-Value. Bid should include a \$30,000.00 contingency that would require approval prior to commencing work, any and all contingency not used will be refunded to Cleburne ISD.

Six Hundred Forty-Two Thousand, Five Hundred Dollars and Zero Cents **\$ 642,500.00**

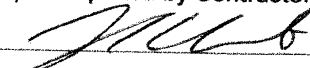
ALTERNATE PROPOSAL - Work shall include tearing off existing roof down to the deck, provide and install new specified Four-ply built up roof system meeting required R-Value. Bid should include a \$30,000.00 contingency that would require approval prior to commencing work, any and all contingency not used will be refunded to Cleburne ISD.

Five Hundred Ninety-Five Thousand, Two Hundred Forty-Two Dollars and Zero Cents **\$ 595,242.00**

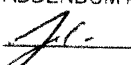
Unit Price Proposal:

1. Remove and replace damaged metal decking: \$ 7.50 per square foot.
2. Remove and replace damaged wood decking: \$ 6.75 per square foot.
3. Remove and replace damaged concrete decking: \$ 8.00 per square foot.
4. Remove and replace damaged gypsum decking: \$ 11.00 per square foot (nominal thickness of 2-1/4").
5. Additional cost over and above the contract amount for replacing wet fill material: \$ 10.00 per inch per square foot.
6. Remove and replace deteriorated nailers: \$ 3.25 per board foot.
7. Install four inch (4") roof drain: \$ 1,200.00 each.
8. Install four inch (4") cast iron drain line complete with all connections, elbows, etc.: \$ 50.00 per linear foot.
9. Additional cost over and above the contract amount for weekend or overtime requested by the Cleburne ISD: \$ 15.00 cost per man per hour.

The above proposal quoted by Contractor:

Signature: 
 Name Printed: Jacob Choate
 Title: Project Manager
 Company: CBS Roofing Services, A Division of CBS Mechanical, Inc.
 Date: October 20, 2016

Contractor acknowledges receipt of the following addenda:

ADDENDUM #1:  (Initial)
 ADDENDUM #2: _____ (Initial)

The above proposal accepted by Owner:

Signature: _____
 Name Printed: _____
 Title: _____
 Cleburne ISD: _____
 Date: _____

Bid Bond

Surety Department

KNOW ALL MEN BY THESE PRESENTS,

That we, CBS Roofing Services, as Principal, hereinafter called the Principal, and the Hartford Fire Insurance Company, a corporation created and existing under the laws of the State of Connecticut, whose principal office is in Hartford, CT, as Surety, hereinafter called the Surety, are held and firmly bound unto the Cleburne Independent School District, as Obligee, hereinafter called the Obligee, in the sum of Five percent (5%) of the greatest amount bid Dollars (\$ -----), for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has submitted a bid for

Project #20161011-30
Administration Building for the Cleburne Independent School District

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 20th day of October, A.D. 2016.

Attest:

Renee Carter

CBS Roofing Services

(Principal)

By

Steve Kress

(Title)

(SEAL)

Witness:

Roberta H. Erb

Hartford Fire Insurance Company

By

Tracy Tucker
Tracy Tucker, Attorney-in-Fact

(SEAL)

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

Bond T-12

One Hartford Plaza

Hartford, Connecticut 06155

email: bond.claims@thehartford.com

cell: 888-268-3488 | fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Code: 46-503582

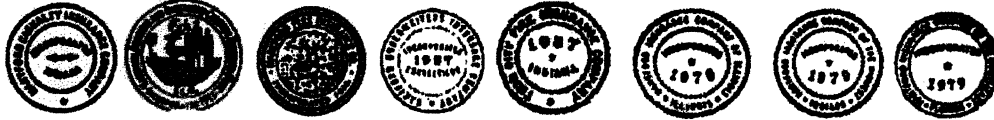
- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of Unlimited :

Tracy Tucker, W. Lawrence Brown, Steven Tucker of FT WORTH, Texas

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray

John Gray, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Vice President

STATE OF CONNECTICUT

COUNTY OF HARTFORD

ss.

Hartford

On this 12th day of July, 2012, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say that he resides in the County of Hartford, State of Connecticut; that he is the Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Kathleen T. Maynard

Kathleen T. Maynard
Notary Public

My Commission Expires July 31, 2016

I, the undersigned, Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of October 20, 2016.
Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President

**CONTRACTOR PROPOSAL FORM
CLEBURNE INDEPENDENT SCHOOL DISTRICT
ADMINISTRATION BUILDING
PROJECT NO. 20161011-30**

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The contract for the project will be between Cleburne ISD and the Roofing Contracting Company.



CONTRACT DOCUMENTS: Having examined the Proposal, Contract, General Instructions, Materials, Execution, and Drawings for Project No. 20161011-30 and conditions for said roofing replacement work, and having examined the premises and circumstances affecting the work, the undersigned offer:

OFFER: To furnish all labor, material, tools, equipment, transportation, bonds, insurance certificates, all applicable taxes, incidentals, and other facilities, and to perform all work for the said roofing replacement for the following:

BASE PROPOSAL - Work shall include tearing off existing roof down to the deck, provide and install new specified CTM roof system meeting required R-Value. Bid should include a \$30,000.00 contingency that would require approval prior to commencing work, any and all contingency not used will be refunded to Cleburne ISD.

Six Hundred Eighty Five Thousand Dollars \$ 685,000.00

ALTERNATE PROPOSAL - Work shall include tearing off existing roof down to the deck, provide and install new specified Four-ply built up roof system meeting required R-Value. Bid should include a \$30,000.00 contingency that would require approval prior to commencing work, any and all contingency not used will be refunded to Cleburne ISD.

Six Hundred Forty Thousand Dollars \$ 640,000.00

Unit Price Proposal:

1. Remove and replace damaged metal decking: \$10.50 per square foot.
2. Remove and replace damaged wood decking: \$4.50 per square foot.
3. Remove and replace damaged concrete decking: \$24.50 per square foot.
4. Remove and replace damaged gypsum decking: \$18.50 per square foot (nominal thickness of 2-1/4").
5. Additional cost over and above the contract amount for replacing wet fill material: \$3.00 per inch per square foot.
6. Remove and replace deteriorated nailers: \$2.75 per board foot.
7. Install four inch (4") roof drain: \$1,200 each.
8. Install four inch (4") cast iron drain line complete with all connections, elbows, etc.: \$80.00 per linear foot.
9. Additional cost over and above the contract amount for weekend or overtime requested by the Cleburne ISD: \$12.50 cost per man per hour.

The above proposal quoted by Contractor:

Signature: Jackie Murphy
 Name Printed: Jackie Murphy
 Title: Project Manager
 Company: Tri-Lam Roofing & Waterproofing
 Date: 10/19/2016

Contractor acknowledges receipt of the following addenda:

ADDENDUM #1:
JRM (Initial)
 ADDENDUM #2:
 _____ (Initial)

The above proposal accepted by Owner:

Signature: _____
 Name Printed: _____
 Title: _____
 Cleburne ISD: _____
 Date: _____



AIA Document A310™ – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Tri-Lam Roofing & Waterproofing, Inc.
965 W. Enon Avenue
Everman, TX 76140

SURETY:

(Name, legal status and principal place of business) United Fire & Casualty Company

P.O. Box 73909
Cedar Rapids, IA 52407-3909

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:

(Name, legal status and address)

Cleburne ISD
505 N. Ridgeway
Cleburne, TX 76033

BOND AMOUNT:

Five Percent Of Greatest Amount Bid

(5% of GAB)

PROJECT:

(Name, location or address, and Project number, if any)

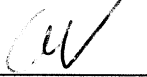
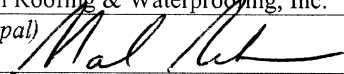
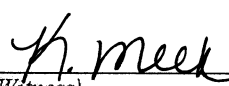
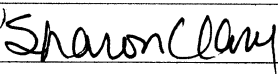
Cleburne Independent School District Administration Building Project No. 20161011-30

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 20th day of October 2016 .

 _____ (Witness)	Tri-Lam Roofing & Waterproofing, Inc. _____ (Principal)  (Seal)
 _____ (Witness)	United Fire & Casualty Company _____ (Surety)  (Seal)
	_____ (Title) Sharon Clary , Attorney-In-Fact

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.

AIA Document A310™ – 2010. Copyright © 1963, 1970 and 2010 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org. 061110



UNITED FIRE & CASUALTY COMPANY, CEDAR RAPIDS, IA
 UNITED FIRE & INDEMNITY COMPANY, WEBSTER, TX
 FINANCIAL PACIFIC INSURANCE COMPANY, ROCKLIN, CA
CERTIFIED COPY OF POWER OF ATTORNEY

Inquiries: Surety Department
 118 Second Ave SE
 Cedar Rapids, IA 52401

(original on file at Home Office of Company – See Certification)

KNOW ALL PERSONS BY THESE PRESENTS, That UNITED FIRE & CASUALTY COMPANY, a corporation duly organized and existing under the laws of the State of Iowa; UNITED FIRE & INDEMNITY COMPANY, a corporation duly organized and existing under the laws of the State of Texas; and FINANCIAL PACIFIC INSURANCE COMPANY, a corporation duly organized and existing under the laws of the State of California (herein collectively called the Companies), and having their corporate headquarters in Cedar Rapids, State of Iowa, does make, constitute and appoint KAE PERDUE, OR DONNIE DOAN, OR KRISTI MEEK, OR DAWN DAVIS, OR WALTER J. DELAROSA, OR SHARON CLARY, OR EDWARD RYAN BOWLES, ALL INDIVIDUALLY OF DALLAS TX

their true and lawful Attorney(s)-in-Fact with power and authority hereby conferred to sign, seal and execute in its behalf all lawful bonds, undertakings and other obligatory instruments of similar nature provided that no single obligation shall exceed \$25,000,000.00 and to bind the Companies thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Companies and all of the acts of said Attorney, pursuant to the authority hereby given and hereby ratified and confirmed.

The Authority hereby granted is continuous and shall remain in full force and effect until revoked by UNITED FIRE & CASUALTY COMPANY, UNITED FIRE & INDEMNITY COMPANY, AND FINANCIAL PACIFIC INSURANCE COMPANY.

This Power of Attorney is made and executed pursuant to and by authority of the following bylaw duly adopted on May 15, 2013, by the Boards of Directors of UNITED FIRE & CASUALTY COMPANY, UNITED FIRE & INDEMNITY COMPANY, and FINANCIAL PACIFIC INSURANCE COMPANY.

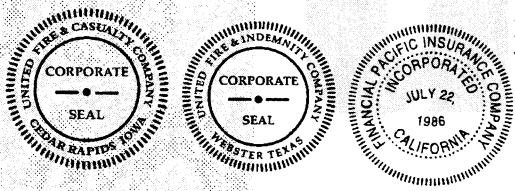
“Article VI – Surety Bonds and Undertakings”

Section 2, Appointment of Attorney-in-Fact. “The President or any Vice President, or any other officer of the Companies may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Companies in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. The signature of any officer authorized hereby, and the Corporate seal, may be affixed by facsimile to any power of attorney or special power of attorney or certification of either authorized hereby; such signature and seal, when so used, being adopted by the Companies as the original signature of such officer and the original seal of the Companies, to be valid and binding upon the Companies with the same force and effect as though manually affixed. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority shall have full power to bind the Companies by their signature and execution of any such instruments and to attach the seal of the Companies thereto. The President or any Vice President, the Board of Directors or any other officer of the Companies may at any time revoke all power and authority previously given to any attorney-in-fact.

IN WITNESS WHEREOF, the COMPANIES have each caused these presents to be signed by its vice president and its corporate seal to be hereto affixed this 1st day of November, 2015

UNITED FIRE & CASUALTY COMPANY
 UNITED FIRE & INDEMNITY COMPANY
 FINANCIAL PACIFIC INSURANCE COMPANY

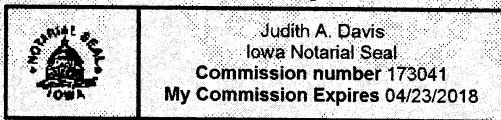
By: *Dennis J. Richmann* Vice President



State of Iowa, County of Linn, ss:

On 1st day of November, 2015, before me personally came Dennis J. Richmann

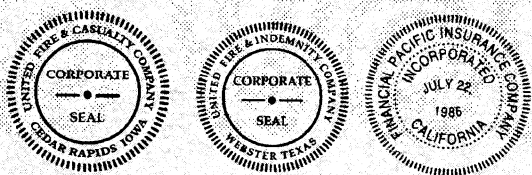
to me known, who being by me duly sworn, did depose and say, that he resides in Cedar Rapids, State of Iowa; that he is a Vice President of UNITED FIRE & CASUALTY COMPANY, a Vice President of UNITED FIRE & INDEMNITY COMPANY, and a Vice President of FINANCIAL PACIFIC INSURANCE COMPANY the corporations described in and which executed the above instrument; that he knows the seal of said corporations; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporations and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporations.



Judith A. Davis Notary Public
 My commission expires: 04/23/2018

I, David A. Lange, Secretary of UNITED FIRE & CASUALTY COMPANY and Assistant Secretary of UNITED FIRE & INDEMNITY COMPANY, and Assistant Secretary of FINANCIAL PACIFIC INSURANCE COMPANY, do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the bylaws and resolutions of said Corporations as set forth in said Power of Attorney, with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID CORPORATIONS, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

In testimony whereof I have hereunto subscribed my name and affixed the corporate seal of the said Corporations this 20th day of October, 2016.



By: *David A. Lange*
 Secretary, UF&C
 Assistant Secretary, UF&I/FPIC



United Fire & Casualty Company
United Life Insurance Company
Addison Insurance Company
Lafayette Insurance Company
United Fire & Indemnity Company
United Fire Lloyd

IMPORTANT NOTICE

TO OBTAIN INFORMATION OR MAKE A COMPLAINT:

You may call United Fire & Casualty Company's toll free telephone number for information or to make a complaint at:

800-343-9130

You may also write to United Fire & Casualty Company at:

United Fire & Casualty Company
Attn: Bond Department
P.O. Box 73909
Cedar Rapids, IA 52407-3909

-or street address-

United Fire & Casualty Company
Attn: Bond Department
118 Second Avenue SE
Cedar Rapids, IA 52401

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

800-252-3439

You may write the Texas Department of Insurance at:

P.O. Box 149104
Austin, TX 78714-9104

ATTACH THIS NOTICE TO YOUR BOND. This notice is for information only and does not become a part or a condition of the attached document and is given to comply with Section 2253.48, Governmental Code, and Section 53-202, Property Code, effective September 1, 2001.

BOND0012 0901

HOME OFFICE: 118 Second Ave. SE, PO Box 73909, Cedar Rapids, IA 52407-3909 Phone: 319-399-5700 FAX: 319-399-5425

**HYLOAD, INC.
HIGH PERFORMANCE ROOF SYSTEMS
20 YEAR NDL ROOFING SYSTEM WARRANTY
MATERIAL, WORKMANSHIP & HAIL DAMAGE**

HYLOAD, INC., 9976 Rittman Road, Wadsworth, OH 44281 (the "Company") warrants to the owner named below ("Owner") that for a period of 20 years, subject to the Terms, Conditions, and Limitations set forth below, the Hyload Roofing Membrane (the "Membrane") supplied to Owner for use on the commercial building project described below, will not leak and cause water infiltration into said building as a result of any defect in the design or manufacture of the Membrane, or as a result of defective workmanship in the application of the Membrane.

TERMS, CONDITIONS & LIMITATIONS

1. This warranty shall not become effective nor will the Company have any obligation under this warranty until all bills for materials and services related to this installation are paid in full.
2. This warranty shall become null and void if the following work is performed without the prior written approval of the Company: (a) any alterations or repairs to the roof, except emergency leak repairs made in a manner compatible with the Membrane (written notice of the emergency repair must be provided to the Company within ten days); (b) subsequent work at or through the Membrane; or (c) changes in building usage resulting in damage to the Membrane.
3. Throughout the term of this warranty, the Company or its representative shall be given free access to the roof of the commercial building described herein during regular business hours.
4. IF AFTER INSPECTION BY THE COMPANY, LEAKS IN THE MEMBRANE WHICH CAUSE WATER INFILTRATION INTO THE BUILDING ARE FOUND TO BE THE RESULT OF DEFECTS IN THE DESIGN OR MANUFACTURE OF THE MEMBRANE, DEFECTIVE WORKMANSHIP IN THE APPLICATION OF THE MEMBRANE, OR RESULTING FROM HAIL DAMAGE UP TO AND INCLUDING 4 INCH DIAMETER HAILSTONES, THE COMPANY WILL, VIA SUCH METHODS AS IT DETERMINES FIT, EFFECT THE REPAIR OF SUCH LEAKS. IT SHALL BE AT THE COMPANIES SOLE DISCRETION WHETHER TO REPAIR OR REPLACE THE DEFECTIVE MATERIAL.
5. Owner shall provide immediate notification by telephone to Hyload upon the discovery of any leak in the Membrane and written confirmation of such leak within fifteen (15) days thereafter. Failure to comply with this notice requirement shall constitute a material breach of the warranty.
6. In the event repairs are required which are not covered by this warranty, the Company will advise Owner of such repairs to be made at Owner's expense. If the required repairs are promptly made by Owner, this warranty shall remain in effect for the unexpired portion of its original term. If owner does not make required repairs promptly (within 30 days), this warranty shall automatically terminate without further notice by the Company.
7. THIS WARRANTY SHALL NOT BE APPLICABLE TO NOR SHALL THE COMPANY BE RESPONSIBLE FOR LEAKS OR DAMAGE CAUSED IN WHOLE OR IN PART BY: ACTS OF GOD, INCLUDING BUT NOT LIMITED TO, LIGHTNING, HURRICANES, GALES, TORNADOES, OR EARTHQUAKES; VANDALISM, CIVIL DISOBEDIENCE OR ACTS OF WAR; SETTLING, WARPING, MOVEMENT, DEFECTIVE CONDITION, CORROSION, OR OTHER FAILURE OF THE STRUCTURE OR SUBSTRATE TO WHICH THE MEMBRANE IS ATTACHED; ANY CHEMICAL CONTAMINANTS POTENTIALLY INJURIOUS TO THE MEMBRANE THAT HAVE NOT BEEN SPECIFICALLY APPROVED BY THE COMPANY VIA THE WARRANTY REQUEST FORM; FAILURE BY OWNER OR ANY LESSEE TO USE REASONABLE CARE IN MAINTAINING THE MEMBRANE; TRAFFIC OR STORAGE OF MATERIALS ON THE ROOF; INFILTRATION OR CONDENSATION OF MOISTURE IN, THROUGH, AROUND, OR ABOVE THE WALLS OF THE BUILDING; ACTS OF NEGLIGENCE OR MISUSE BY OWNER OR ANY OTHER PARTY; DEFECTIVE INSTALLATION OR FAILURE OF ANY MATERIAL OR COMPONENT NOT FURNISHED BY THE COMPANY; DESIGN CHARACTERISTICS OF THE ROOF, INCLUDING THE INABILITY OF THE ROOF TO WITHSTAND LOADS IMPOSED ON THE ROOF FROM ANY SOURCE; AND DISTORTION, EXPANSION OR CONTRACTION OF ANY WORK OR FLASHING OTHER THAN THAT INCLUDED AS PART OF THE MEMBRANE SYSTEM.

8. TERM OF WARRANTY. This warranty is valid for the period stated and from the date of installation completion as indicated hereon.
9. This warranty is not assignable; it applies only to the original building owner named below.
10. IT IS UNDERSTOOD AND AGREED THAT THE REMEDY SET FORTH HEREIN IS OWNERS' SOLE AND EXCLUSIVE REMEDY SO THAT THE COMPANY'S REPAIR OF LEAKS CONSTITUTES FULFILLMENT OF ALL ITS OBLIGATIONS. IN NO EVENT SHALL THE COMPANY BE LIABLE (WHETHER BASED IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE) FOR ANY INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGE TO UNDERLYING COMPONENTS, DAMAGE TO THE BUILDING OR ITS CONTENTS, LOST PROFITS OR OTHER ECONOMIC LOSSES.

DISCLAIMERS
THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

<u>AREA DESIGNATION</u> SPECIMEN		
<u>BUILDING NAME</u> SPECIMEN		
<u>BUILDING ADDRESS</u> SPECIMEN		
<u>OWNER'S NAME</u> SPECIMEN		
<u>OWNER'S ADDRESS</u> SPECIMEN		
<u>ROOFING CONTRACTOR'S NAME</u> SPECIMEN		
<u>ROOFING CONTRACTOR'S ADDRESS</u> SPECIMEN		
<u>COMPLETION DATE</u> SPECIMEN	<u>SQUARE FEET</u> SPECIMEN	<u>PRODUCT</u> SPECIMEN

Owner agrees to accept this warranty as part of its purchase of the Hyload Roofing Membrane. This warranty shall be governed by the laws of the State of Ohio, excluding principles of conflicts of law. The parties agree that all actions arising under this warranty shall be brought in the Court of Common Pleas for Medina County, Ohio.

HYLOAD, INC.

<u>BY</u> D. E. SHAW
<u>TITLE</u> TECHNICAL DIRECTOR
<u>DATE</u> SPECIMEN

HYLOAD, INC.
9976 Rittman Road
Wadsworth, Ohio 44281
(800) 457-4056



HYLOAD
ROOFING

CTEM | GREEN ROOFING | WHITE ROOFING SYSTEMS



SUSTAINABLE ROOFING SOLUTIONS

1-800-457-4056

WWW.HYLOAD.COM



ROOFING SYSTEMS

Hyload Coal Tar Elastomeric Membrane (CTEM) was developed in Europe in the mid 1960's as a Thru Wall Flashing, waterproofing membrane for bridge decks and low sloped roofing membranes. CTEM was brought to the US in the 1970's and used as a roofing membrane for low sloped roofing constructions. Hyload began manufacturing CTEM in 1981 and continues to manufacture it in accordance with our original formulation due to its years of superior performance.

The manufacturing of Hyload CTEM roofing products combine raw materials consisting of coal tar pitch, DuPont™ Elvaloy®, PVC powder and dispersed polyester fibers. When complete, the material is processed to the designated mil thickness.

Each of our high performance CTEM systems have outstanding product related benefits that allow it to perform in caustic, unfriendly environments. The traditional hot applied CTEM system provides the benefits of hot coal tar pitch applications while the self-adhered cold applied system allows the CTEM to be used in applications where kettles, odors and flames cannot be tolerated. Both systems have warranties available for up to 20 years in duration.

HYLOAD CTEM ROOFING SYSTEMS

- Hyload Coal Tar Elastomeric Membranes (CTEM) were developed over 30 years ago in Europe, where they are still in use today. Hyload membranes are manufactured by a process that combines DuPont™ Elvaloy® KEE, coal tar pitch and dispersed polyester fibers.
- High-performance roofing membrane that links the advanced technologies of Elvaloy® with the time performance characteristics of coal tar pitch.



Hyload CTEM membrane systems are durable and can withstand retarded water drainage, chemicals, grease, acids and other caustic conditions.

Hyload Roofing Systems are rated, classified and tested and are available with roof warranties of up to 25 years. Our CTEM roofing systems can be installed on roofs with zero slope.

Our team of Sales Specialists can provide expert analysis of existing roofing conditions and give recommendations for utilizing the most cost-effective, time-proven, low-maintenance roofing system available today.



23-YEAR OLD ALPROOF AT THE UNIVERSITY OF KENTUCKY

SURVIVING THE HAILSTONE TEST:

In 2013, J.D. Koontz and Associates tested a section of the 23-year old University of Kentucky white roof membrane. Under repeated laboratory conditions, a 23-year old section was able to withstand the force of three-inch manmade hailstones, shot from a gun at the speed of 90 mph. The roofing system we manufacture today featuring a fleece backing now passes a **passes a four-inch hail test** to which we extended our warranty.

UNMATCHED WARRANTY AND SERVICE

Hyload is pleased to offer roof assemblies that are eligible for 15- or 20-year warranty coverage against damage from up to 4" hailstones. Please contact us for the details on this hail warranty coverage.

18-YEAR OLD HYLOAD ROOF



WHITE ROOFING MEMBRANE SYSTEMS

- High-performance membranes
- Utilizes the advantages of DuPont™ Elvaloy®
- Thermoplastic allows for the roof-top security of hot-air welded seams
- Alproof is an uncoated membrane that can be laid in cold-applied adhesives or hot asphalt
- Alproof is available in a fleece-back configuration
- Alpsam is a self-adhered membrane in a “peel-and-stick” configuration

We are proud to carry ENERGY STAR® certification on our white membranes. The certified laboratory testing of the aged solar reflectance of our membrane is equal to or greater than 94% of the new, unexposed membrane.

Our white membranes can work in several roof nomenclature configurations and result in warranted systems.

Whether trying to satisfy LEED requirements, or simply looking for a high-quality white roof membrane, Hyload can provide a solution.



GREEN ROOFING SYSTEMS

- An easy choice for waterproofing when designing your green roof
- High-performance Coal Tar Elastomeric Membrane (CTEM)
- Incorporating the modern benefits of DuPont™ Elvaloy® and the time-proven properties of coal tar pitch, Hyproof has passed the 2-year FLL root barrier test

BESIDES THE CRITICAL PROPERTY OF ROOT RESISTANCE, THE HYPROOF MEMBRANE ALSO OFFERS:

- Hot-air welded seams for system integrity – no lap adhesives that can be attacked by chemicals or roots
- Extreme chemical resistance
- Mold, rot and mildew resistant
- Puncture resistant
- Unaffected by ponding water – can be warranted on zero slope

The Hyproof membrane, along with our full line of accessory products, will provide the optimal, long-lasting waterproofing choice for any green roof system.



23-YEAR OLD ALPROOF
AT THE UNIVERSITY OF KENTUCKY





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Hail Resistant Roof: Hyload Roofing Membrane Holds Up Against Texas Hail

In 1987 it was time to put a new hail resistant roof on the Texas Workforce Commission, TWC, (formerly the Texas Employment Commission) building at 301 West 13th Street in downtown Fort Worth. TWC consulted with Armko Industries, Inc. regarding their best roofing choice. The decision was made to go with a hot-applied Hyload Coal Tar Elastomeric Membrane (CTEM) system, made with DuPont™ Elvaloy® KEE roofing resin.

Sixteen years ago the existing roof was torn off down to the structural concrete deck and a new CTEM built-up roof system was laid up as follows:

- 2-in.-thick polyisocyanurate insulation ribbon-mopped with hot asphalt to the deck
- 1/2-in.-thick perlite mopped in place with hot asphalt
- 2 plies of Type IV fiberglass felt mopped in hot asphalt
- 1 ply of Hyload H150E cap sheet mopped in hot asphalt
- Flood coat of hot coal tar
- Aggregate surfacing of washed river rock spread into the flood coat

The curbs and rise-walls were flashed with H150E set into hot asphalt, and then painted with an aluminized coating. Hyload issued a 15-year warranty in October, 1987.

Weather Conditions

From October 1987 through October 2003, numerous hail storms and other severe weather events passed through downtown Fort Worth. There were 12 readings with hail stones of 2-in. or larger. Notably, in May, 1995 over the span of 35 minutes, the 8 year-old roof was pummeled with hail stones between 2 1/2-in. and 4 in.. (Hail-fall data compiled from Computerized Hail Area Searches, CHAS, ©1997 by Haag Engineering Co.)

Hyload and Armko had been monitoring this roof through the years. Of obvious interest were the roof properties that contribute to successful long-term performance. When most commercial roof membrane systems are new, one can reasonably expect to get good results if cores are taken and tested. However, this roof has been in place for 16 years.

The natural and expected results of aging for roof membrane systems include increasing embrittlement and deterioration. Further, the presence of the underlying insulation will accelerate this embrittlement by holding higher temperatures in the roof assembly. Testing and evaluation of this roof would include

examination of any residual impact damage, subjecting a test core to new impacts, evaluating the interply mopping asphalt, and testing the residual strength of the bituminous built-up roof membrane system.

Testing Methods

In July, 1995 after the severe May storm, the cutting of a random core sample from the roof was witnessed and evaluated by Maxim/Southwestern Laboratories. The M/SwL report made particular note of softball and baseball size impacts that were apparent over the entire roof. It also stated that no penetrations due to hail impacts were detected in the roof field. The bituminous membrane system was de-saturated and scrutinized. No punctures, tears, or any other identifiable damage to the Hyload membrane or the glass felts were found. Further, the report stated "the interply bitumen appeared to be newly applied."

In October 2003, it had been 16 years since installation, 8 years since an extreme hail event, plus numerous other storms that had passed through the area. Questions to be answered were:

1. Was there any residual damage from the hail exposure this roof had experienced?
2. Could this aged roof withstand significant impacts today and remain effective?
3. After 16 years of service, was the general condition of the roof acceptable?

To answer the first two questions, in October, 2003 new cores were taken from the roof. One of the cores was sent to Haag Engineering in Carrollton, TX. Haag has developed an ice ball impact test that can be run in the controlled laboratory environment. Artificial hail stones are made in the freezer and shot at samples at a speed that corresponds to the terminal free-fall velocities of similar-sized, naturally occurring hail stones. Although laboratory techniques limit the size of the artificial ice balls to 2 1/2-in., the laboratory testing is more demanding than natural hail stones of the same size for two reasons:

- The artificial stones are denser than natural stones due to the differences in how they are formed. This higher density results in a higher energy at impact with the artificial stone.
- The laboratory impacts are made perpendicular to the sample which assures the maximum energy transfer. In actual hail events, the vast majority of the stones falling are impacting roof surfaces at an angle less than perpendicular due to the high winds that almost invariably accompany hail storms. This type of glancing impact does not deliver as much energy to the roof as a perpendicular impact.

The 16 year-old core sample from the TWC building was mounted and shot with two, 2 1/2-in. ice balls. After examining the core's surface and concluding that there was no damage to the surface of the Hyload 150E cap sheet, the roofing mat was peeled from the underlying insulation boards and de-saturated in a

vapor de-greaser. The membranes were then scrutinized and no fractures or strained regions were found in either the Hyload 150E cap sheet nor in the fiberglass reinforcements.

Testing Results

The Haag Engineering report on this testing concluded that there was no latent damage of any kind after sixteen years of exposure. Haag also concluded that impacts by 2 1/2-in. simulated hailstones against the Hyload core where ballasted with gravel left the Hyload 150E membrane and underlying reinforcements and insulations intact.

Both the July, 1995 and the October, 2003 evaluations performed on cores from the roof provide strong evidence of the ability of an aggregate-surfaced Hyload built-up roof system to withstand hail impacts for many years without punctures or tears. A remaining question was whether the general condition of the roof was still acceptable after 16 years in service.

Although built-up roofing systems have been in use for decades, there is no published standard in existence that contains performance properties for this type of roof. However, in November, 1974 the National Bureau of Standards published a paper titled "Preliminary Performance Criteria for Bituminous Membrane Roofing". The authors tested and evaluated both good performing and poor performing 4-ply built-up roofs and analyzed the results. A recommendation that came out of their study was that the tensile strength of a built-up roof should not be less than 200 lb/in in the weakest direction when tested at 0°F.

Note: The manufacture of roofing materials often results in the "machine direction" of the material having a higher tensile strength than the "cross-machine direction. This is the reason for the stipulation of the "weakest direction" requirement in the proposed criteria.

Another test core from the TWC roof was sent to PRI Asphalt Technology in Tampa, FL for evaluation of the tensile strength property of the membrane system. When the roofing membrane was tensile tested at 0°F the results were 402 lb/in. in the machine direction and 275 lb/in. in the cross-machine direction. These results, exceeding the proposed requirements by a minimum of 37%, provide evidence that this roof 16-year-old insulated roof assembly has maintained good strength properties.

To evaluate the condition of the interply asphalt, a section of a test core from the roof was sent to Trumbull Asphalt, the major supplier of mopping asphalt. Years of experience in roof asphalt evaluations reveal that interply asphalt will age (harden) when in place on the roof, but the aging should limit the rise in softening point to approximately 240°F and the drop in penetration to 6 dmm when tested at 77°F. When tested at the Trumbull laboratory, the interply asphalt from the test core results were 228°F

softening point and 13 dmm penetration at 77°F, results that fall within normal expectations. The Hyload 150E cap sheet protected the interply asphalt and kept it "alive" even though the combination of insulation and solar-induced thermal loading provided significant aging influence for 16 years. (For those wanting more information on softening point and penetration testing, please refer to ASTM standards D36 and D5, respectively.)

Report Summary

A summary of the evaluation of the 16 year-old TWC roof is as follows:

- The roof is in place and currently performing well.
- Evaluation of a sample core shows there is no residual damage from hail exposure, including the 4-in. hail that occurred in 1995 when the roof was 8 years old.
- Controlled and measured impacts of 2 1/2-in. artificial hail stones on a 16-year-old core produced no damage to the membrane system.
- The strength of the membrane system exceeds recommended values by over 37%.
- The interply mopping asphalt has exhibited no more than normal aging in this insulated roof system. It is reasonable to conclude that the Hyload H150E CTEM cap sheet has truly capped and protected the roof system promoting the long life and retention of performance properties. The toughness and impermeable nature of the membrane protects the underlying reinforcing plies and mopping bitumen. Equally important is the fact that this toughness is still evident after 16 years of performance on this insulated roof assembly. As a result, Hyload is pleased to offer its customers warranty coverage for hail stones up to 4 inches in diameter.