

NOTICE OF OPEN MEETING

Posted 1:00 p.m. Monday, July 3, 2023

Notice is hereby given that the Neosho City Council will meet in special session on Thursday, July 6, 2023 at 6:00 p.m., in the Council Chambers at City Hall 203 East Main Street, Neosho, Missouri.

AGENDA SPECIAL SESSION NEOSHO CITY COUNCIL

The agenda of this meeting includes:

CALL TO ORDER

ROLL CALL

APPROVAL OF AGENDA

CONSENT AGENDA

1. June 20, 2023 Open Session Council Minutes
2. June 20, 2023 Closed Session Council Minutes
3. June 28, 2023 Special Session Council Minutes
4. June 28, 2023 Closed Session Minutes
5. Bill No. 2023-156: FY23 Budget Amendment
6. Bill No. 2023-157: Surplus of Police Vehicles

BIDS

1. Fire Department Hose Bid
2. City Hall - Auditorium Roofing Bid

NEW BUSINESS

1. Bill No. 2023-158: Contract with Guaranteed Roofing for City Hall and Auditorium
2. Resolution Bill No. 2023-05: Amend City Purchasing Policy - Vendor List

ADJOURN

MINUTES
NEOSHO CITY COUNCIL
June 20, 2023 - 7:00 PM
Neosho Council Chambers
203 E. Main St., Neosho, MO

OPENING PRAYER & PLEDGE OF ALLEGIANCE

Mark Taylor led the prayer and Mayor Davidson led the pledge of allegiance.

CALL TO ORDER

Mayor Davidson called the meeting to order at 7 p.m.

ROLL CALL

COUNCIL PRESENT:

Richard Davidson, Carl Cobb, Tom Workman, Charles Collinsworth, Julie Humphrey, Ashton Robinson

COUNCIL ABSENT:

Angela Thomas was absent.

CITY OFFICERS PRESENT:

David Kennedy, City Manager; Jordan Paul, City Attorney; and Cheyenne Wright, City Clerk, minutes taken by clerk.

APPROVAL OF AGENDA

Councilman Workman made a motion to approve the agenda; Councilwoman Robinson seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

CONSENT AGENDA

Councilman Collinsworth made a motion to approve the consent agenda including:

- June 6, 2023 Council Minutes
- June 6, 2023 Closed Minutes
- June 12, 2023 Special Session Minutes
- Bill No. 2023-146
- Bill No. 2023-147

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- Bill No. 2023-148
- Bill No. 2023-149
- Bill No. 2023-150
- Bill No. 2023-151
- Bill No. 2023-153
- Bill No. 2023-154
- Bill No. 2023-155;

Councilman Workman seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

UNFINISHED BUSINESS

Bill No. 2023-152: Ozark Fiber Agreement

AN ORDINANCE declaring as surplus certain land owned by the City of Neosho, Missouri, in the area of Village Road and Village Circle, Neosho, Missouri; authorizing the City of Neosho to enter into an Agreement with Ozark Fiber, LLC, a Missouri Limited Liability Company, for the purpose of selling said real estate; and authorizing the Mayor to execute the same by and on behalf of the City of Neosho.

Attorney Paul read Bill No. 2023-152 in title only.

Councilwoman Robinson made a motion to approve and discuss Bill No. 2023-152; Councilwoman Humphrey seconded.

Development Services Director Leavens addressed the City Council stating that since the last reading of the ordinance, staff received the appraisal and survey back, both of which are attached to the agenda packet. The appraised value for the property was \$1100. Staff also attached an amended contract to the agenda packet with the updated legal and appraisal amount.

Mayor Davidson made a motion to amend the contract to include the appraised value of \$1100.00 and to update the legal description; Councilwoman Robinson seconded.

Roll call vote for the amendment:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

Roll call vote for the amended ordinance and contract:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

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Abstain: None
Passed.

VISITOR'S BUSINESS

Robert Bolles - Police Department was not present to speak.

There were no visitor's present to speak.

BIDS

Engine 8 Valve Replacement

Fire Chief Houk addressed the Council stating that this item is to replace the intake valves on Engine 8 that are leaking. Staff found out these valves were leaking during annual pump testing and maintenance. This bid was sent to five vendors and three bids were received back. Still Fire Service was the lowest bid and this is the company that the city is currently using for annual pump testing and maintenance. If we need an additional valve then they will honor the price in the bid.

Councilman Collinsworth made a motion to approve the bid from Still Fire Service in the amount up to \$10,449.66 extra valve ; Councilman Workman seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

NEW BUSINESS

Bill No. 2023-156: FY23 Budget Amendment

AN ORDINANCE OF THE CITY OF NEOSHO, MISSOURI, PROVIDING THAT THE REVENUES AND EXPENDITURES BUDGET BE AMENDED FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2022 AND ENDING SEPTEMBER 30, 2023.

Attorney Paul read Bill No. 2023-156 in title only.

Councilman Collinsworth made a motion to approve and discuss Bill No. 2023-156; Councilman Cobb seconded.

Finance Director Forest addressed the city council stating that the purpose of this agenda item is to seek council approval for amending the city's budget to reflect changes since the adoption of the original FY23 budget.

Fund Increase (Decrease)

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100 General Admin Fund (\$423,254.75)
130 Fire Fund (\$295,844.30)
175 Senior Center Fund \$0.00
195 Auditorium Fund \$0.00
300 Capital Improvement Fund \$0.00
310 Hotel/Motel Fund (\$700.00)
800 Street Fund (145,177.81)
Total City Increase (Decrease) in Fund Balance (\$864,976.86)

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

Bill No. 2023-157: Surplus of Police Vehicles

An Ordinance of the City of Neosho, Missouri declaring certain personal property as surplus; and authorizing the City Manager to execute the appropriate documents.

Attorney Paul read Bill No. 2023-157 in title only.

Councilwoman Robinson made a motion to approve and discuss Bill No. 2023-157; Councilwoman Humphrey seconded.

Police Chief Baird addressed the City Council stating that these vehicles are ready for replacement due to use and mileage. Staff requests to surplus these vehicles.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

Timber Ridge HOA

City Manager Kennedy addressed the Council stating that the Timber Ridge HOA have reached out to him multiple times regarding Werneke Road. At this point, this is a decision for council to make on whether or not to take over this road.

Jeff Werneke and Adam Weston, with the Timber Ridge HOA, shared their presentation with the council. (This presentation is attached to these minutes.)

Mayor this is in the county currently. Have you went to them yet to ask them first? And, when Schuber Mitchell built Greens 1, did they speak to you about the easement for the road that is attached to Werneke Road?

Jeff Werneke stated, no, we have not reached out to the county yet. Larry Lane spoke to his Jeff Werneke's

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dad regarding the water easement however unsure regarding the access to Werneke Road. I was told that there was supposed to be some cooperative road repair for the use of the road. That was a conversation with Glen Werneke and Larry Lane, so unsure what exactly transpired.

Discussion was held.

The council requested that the HOA reach out to the county about this road. This road is in the county, however we do understand there are Neosho citizens that also use this road.

Approval to Purchase New Engine

Fire Chief Houk addressed the city council stating that the purpose of this item is to seek approving the purchase of this engine before we thought it would be ready. This was approved in 2020. We would like to ask for these funds to be released now instead of waiting until the FY24 budget.

Mayor Davidson stated that this should come back to the July 18th Council Meeting, when the Budget Amendment is under the consent agenda and approved.

REPORT OF CITY OFFICERS

City Manager Kennedy would like to thank the following departments for the outstanding work they have done cleaning up after the storm over the weekend: Public Works, Parks Department and Fire Department. Also would like to say thank you to Benny's Lawn and Landscaping for cleaning up all of the debris from sticks and limbs to all of the flowers that were strewn across the cemetery.

Finance Director Forest stated that the LIHWAP Program will be ending on September 30th.

CLOSED SESSION

Mayor Davidson made a motion to go into closed under Section 610.021 (1) and (2) RSMo; Councilman Cobb seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

Mayor Davidson closed the meeting at 8:10 p.m.

Mayor Davidson reopened the meeting at 9:03 p.m. and announced that three votes were taken.

ADJOURN

There being no further business to come before the City Council, Mayor Davidson made a motion to adjourn; Councilwoman Humphrey seconded.

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Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Ashton Robinson, Tom Workman

No: None

Abstain: None

Passed.

Mayor Davidson closed the June 20, 2023 Council Meeting at 9:05 p.m.

APPROVED

ATTEST

NEOSHO CITY COUNCIL

Mayor

City Clerk

MINUTES
NEOSHO CITY COUNCIL
June 28, 2023 - 3:00 PM
Neosho Council Chambers
203 E. Main St., Neosho, MO

CALL TO ORDER

Mayor Davidson called the meeting to order at 3 p.m.

ROLL CALL

COUNCIL PRESENT:

Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Tom Workman

COUNCIL ABSENT:

Angela Thomas came into closed session at 3:02 p.m., Ashton Robinson

CITY OFFICERS PRESENT:

David Kennedy, City Manager; Jordan Paul, City Attorney; and Cheyenne Wright, City Clerk, minutes taken by clerk.

APPROVAL OF AGENDA

Councilman Workman made a motion to approve the agenda; Councilman Cobb seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Tom Workman

No: None

Abstain: None

Passed.

CLOSED SESSION

Mayor Davidson made a motion to close the meeting under Section 610.021 (1) RSMo; Councilman Collinsworth seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Tom Workman

No: None

Abstain: None

Passed.

June 28, 2023 Council Minutes

Mayor Davidson closed the open session at 3:01 p.m.

Mayor Davidson called the meeting back in open session and announced that one vote was taken.

ADJOURN

There being no further business to come before the City Council, Mayor Davidson asked for a motion to adjourn.

Mayor Davidson made a motion to Adjourn; Councilman Workman seconded.

Roll call vote:

Yes: Carl Cobb, Charles Collinsworth, Julie Humphrey, Richard Davidson, Tom Workman

No: None

Abstain: None

Passed.

Mayor Davidson adjourned the June 28th, 2023 Special Session at 3:42 p.m.

APPROVED

ATTEST

NEOSHO CITY COUNCIL

Mayor

City Clerk

REQUESTED COUNCIL MEETING DATE: June 20, 2023**ITEM:** Bill No. 2023-156: FY23 Budget Amendment

ORIGINATING DEPARTMENT: Finance Department**ATTACHMENT:****1. Bill No. 2023-156 FY23 Budget Amendment**

PURPOSE:

The purpose of this item is to amend City revenue and expenditure budgets to reflect changes since the adoption of the original FY23 budget.

BACKGROUND:

Staff is requesting to amend the budget for Surplus Revenues additional expenses and Capital Purchases.

<u>Fund</u>	<u>Increase (Decrease)</u>
100 General Admin Fund	(\$423,254.75)
130 Fire Fund	(\$295,844.30)
175 Senior Center Fund	\$0.00
195 Auditorium Fund	\$0.00
300 Capital Improvement Fund	\$0.00
310 Hotel/Motel Fund	(\$700.00)
800 Street Fund	(145,177.81)

Total City Increase (Decrease) in Fund Balance (\$864,976.86)

-

RECOMMENDATION:

Staff recommends adoption of the budget adjustments as set forth in the attached Bill.

AN ORDINANCE OF THE CITY OF NEOSHO, MISSOURI, PROVIDING THAT THE REVENUES AND EXPENDITURES BUDGET BE AMENDED FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2022 AND ENDING SEPTEMBER 30, 2023.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, AS FOLLOWS:

Section 1: That Ordinance No. 330-2022 is amended to read as follows:

The City Manager is hereby authorized to expend the funds as set forth in said budget. Receipts and disbursements shall be within the limits herein described and adopted by reference and shall be made in accordance with applicable laws and ordinances. These limits shall be referenced by fund as outlined.

			Fund Bal.			
<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
100	Transfer to Fire Dept	100-000-3205-000			(423,254.75)	(423,254.75)
100	Municipal Court Prof Service	100-125-5260-125		1,000.00	(1,000.00)	
100	Court Appointed Expenses	100-125-5261-125		(500.00)	500.00	
100	Municipal Court Equip Maint	100-125-5330-125		(500.00)	500.00	
100	Cemetery Facility Maintenance	100-204-5320-204		(690.00)	690.00	
100	Cemetery Equipment Maint	100-204-5330-204		690.00	(690.00)	
GENERAL ADMIN FUND TOTALS			\$0.00	\$0.00	(\$423,254.75)	(\$423,254.75)

			Fund Bal.			
<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
130	Transfer to Capital Imp	130-000-3285-000			(719,099.05)	(719,099.05)
130	Transfer fm Public Safety	130-000-3305-000			423,254.75	423,254.75
FIRE FUND TOTALS			\$0.00	\$0.00	(\$295,844.30)	(\$295,844.30)

			Fund Bal.			
<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
175	Senior Center Prof Services	175-175-5260-175		240.00	(240.00)	
175	Senior Center Facility Maint	175-175-5320-175		(240.00)	240.00	
SENIOR CENTER FUND TOTALS			\$0.00	\$0.00	\$0.00	\$0.00

			Fund Bal.			
<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
195	Lampo Prof Services	195-114-5260-114		600.00	(600.00)	
195	Lampo Electricity	195-114-6300-114		(600.00)	600.00	
195	Auditorium Prof Services	195-195-5260-195		480.00	(480.00)	
195	Auditorium Facility Maint	195-195-5320-195		(480.00)	480.00	
AUDITORIUM FUND TOTALS			\$0.00	\$0.00	\$0.00	\$0.00

Fund Bal.

<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
300	Transfer fm Fire Dept	300-000-3385-130			719,099.05	719,099.05
300	Transfer fm Streets Dept	300-000-3385-800			54,938.24	54,938.24
300	Capital Imp/Purch Fire Dept	300-300-5790-130		719,099.05	(719,099.05)	
300	Capital Imp/Purch Street Dept	300-300-5790-800		54,938.24	(54,938.24)	
CAPITAL IMPROVEMENT FUND TOTALS			\$0.00	\$774,037.29	\$0.00	\$774,037.29

<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
310	Hotel Motel Electricity	310-310-6300-310		700.00	(700.00)	
HOTEL/MOTEL FUND TOTALS			\$0.00	\$700.00	(\$700.00)	\$0.00

<u>Fund</u>	<u>Account</u>	<u>Account Number</u>	<u>Revenues</u>	<u>Expenditures</u>	<u>Increase (Decrease)</u>	<u>Transfers In (Out)</u>
800	Transfers to Capital Improvement	800-000-3285-000			(54,938.24)	(54,938.24)
800	Streets Contract	800-800-5800-800		90,234.57	(90,234.57)	
STREETS FUND TOTALS			\$0.00	\$90,234.57	(\$145,177.81)	(\$54,938.24)

Section 2: All other ordinances and parts of ordinances in conflict herewith are repealed.

Section 3: This ordinance shall be in full force and effect upon final passage and approval.

APPROVED after final passage this **July 18, 2023**.

ATTEST:

CITY OF NEOSHO, CITY COUNCIL

Clerk

Mayor

APPROVED:

City Attorney

REQUESTED COUNCIL MEETING DATE: June 20, 2023

ITEM: Bill No. 2023-157: Surplus of Police Vehicles

ORIGINATING DEPARTMENT: Police Department

ATTACHMENT:

1. Bill No. 2023-157 Surplus PD Vehicles

PURPOSE:

To surplus two police vehicles to use as possible trade in on future new police vehicle purchase.

BACKGROUND:

Surplus of two police vehicles for possible use as a trade-in on future new police vehicles. The vehicles are as follows:

2018 Dodge Charger VIN: 2C3CDXAT8JH210625 Miles: 107,643

2016 Dodge Charger VIN: 2C3CDXAT6GH155794 Miles: 91,657

RECOMMENDATION:

Allow the above-listed police vehicles to be surplus.

AN ORDINANCE OF THE CITY OF NEOSHO, MISSOURI DECLARING CERTAIN PERSONAL PROPERTY AS SURPLUS; AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE APPROPRIATE DOCUMENTS.

WHEREAS, THE CITY OF NEOSHO HAS OBTAINED CERTAIN PERSONAL PROPERTY; AND

WHEREAS, THE CITY OF NEOSHO HAS DEEMED SAID PERSONAL PROPERTY TO BE SURPLUS AND NOT NECESSARY FOR FUTURE CITY NEEDS.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, AS FOLLOWS:

Section 1: That the City of Neosho, Missouri declares the following items of personal property to be surplus:

2018 Dodge Charger VIN: 2C3CDXAT8JH210625 Miles: 107,643

2016 Dodge Charger VIN: 2C3CDXAT6GH155794 Miles: 91,657

Section 2. That the City Manager is hereby authorized to execute the appropriate documents on behalf of the City of Neosho.

PASSED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, this _____ day of _____, 2023 by a vote of _____.

CITY OF NEOSHO

Richard Davidson, Mayor

ATTEST:

Cheyenne Wright, City Clerk

APPROVED AS TO FORM:

Jordan L. Paul, City Attorney

REQUESTED COUNCIL MEETING DATE: July 6, 2023

ITEM: Fire Department Hose Bid

ORIGINATING DEPARTMENT: Fire Department

ATTACHMENT:

1. Ellebracht Company-Fire Hose Bid
 2. Feld Fire Bid A and B-Fire Hose Bid
 3. Feld Fire Bid A-Fire Hose Bid
 4. Feld Fire Bid B-Fire Hose Bid
 5. Kenco Fire Equip. Hose Bid
 6. NAFECO Fire Hose Bid
 7. North America Fire Equipment Co., Inc-Fire Hose Bid
 8. Sentinel Emergency Solutions Fire Hose Bid
 9. Hose Bid Tab sheet
-

PURPOSE:

To purchase hose for the new engine.

BACKGROUND:

Recently we discovered that the new engines purchased by the City and the NAFPD were ordered without any hose on them. I sent out bids to purchase the hose that is needed to place those engines in service. To get a better price, the bid was sent out 3 ways. The City, the NAFPD, and then a combined City /NAFPD together. The best price is with the group purchase of the hose. We sent out 8 bids and we received 6 bids back. All met the requirements. Leo M Ellebracht had the lowest price at \$12,488.46 for each entity. This is an unbudgeted expense, and I am asking for it to be paid out of the fund balance.

RECOMMENDATION:

Staff recommends accepting the bid from Leo M. Ellebracht Co. for \$12,488.46.

BID FORM

Description: (To be completed by bidding party)

Product information enclosed.

Price(s) for unit(s) meeting enclosed specifications:

BID A: \$ 12,488.46

BIB B: \$ 12,488.46

BID A/B: \$ 24,976.92

F.O.B. Neosho, MO Freight Paid on this shipment by the manufacturer.

Projected Shipping Date: 8 Weeks A.R.O.

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

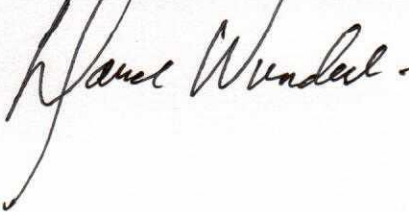
COMPANY: LEO M ELLEBRACHT COMPANY

ADDRESS: 104 MULLACH CT – SUITE 1028, WENTZVILLE, MO 63385

PHONE: (636) 332-6985

EMAIL: david.wunderlin@hotmail.com

BY: David Wunderlin – Sales Manager



BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$ 129.45 Armatex Attack # AA175W050-NH150**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 619.06 Armatex JAFRIB # JR400Y100-SZ400**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 246.77 Armatex JAFRIB # JR400Y025-SZ400**

10

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: **\$ 197.72 Armatex Attack #AA250B050-NH250**

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

Fire Hose Bid Specification

BID B

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
Hose will be white in color.

Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$ 129.45 Armatex Attack # AA175W050-NH150**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 619.06 Armatex JAFRIB # JR400Y100-SZ400**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 246.77 Armatex JAFRIB # JR400Y025-SZ400**

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: **\$ 197.72 Armatex Attack #AA250B050-NH250**

Fire Hose Bid Specification

BID A/B

Quantity

- 40 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
Hose will be white in color.
Hose shall be factory stenciled with **BLACK** Ink and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$ 129.45 Armatex Attack # AA175W050-NH150**

- 24 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK** Ink and using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 619.06 Armatex JAFRIB # JR400Y100-SZ400**

- 4 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK** ink and using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$ 246.77 Armatex JAFRIB # JR400Y025-SZ400**

20

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK** ink and using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: **\$ 197.72 Armatex Attack #AA250B050-NH250**

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$135.64**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$632.40**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$254.67**

- 10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.
- The hose will be BLUE in color.**
- The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.
- Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: **\$ 204.98**

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

Fire Hose Bid Specification

BID 1

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
Hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$135.64**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$632.40**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$254.67**

10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ **\$ 204.98**

**Please provide hose description/ specification and warranty information. **

**Please include any shipping cost in bid. **

**Please provide anticipated delivery date or time frame. (From date of order) **

BID FORM

Description: (To be completed by bidding party)

ATI is the brand of hose quoted for part A and B - Each hose satisfies the bid requirements in each section.

Warranty on ATI hose is 10 Years - Attached warranty document with bid.

Included product sheets w/ specs for each section bid - 3) Data Sheets Total

Freight is included when above \$7,000 and to a single location

Price(s) for unit(s) meeting enclosed specifications: \$25,721.48 (Bid A & B)

F.O.B. Neosho, MO

Projected Shipping Date: 56 Days from Date of Order

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: Ed M Feld Equipment Company, Inc.

ADDRESS: 1330 NW Jefferson St. Grain Valley, MO, 64029

PHONE: 712-210-5251

EMAIL: jackson@feldfire.com

BY: Jackson Simons



Box 625 113 North Griffith Road
Carroll, IA 51401
www.feldfire.com

Quote

EMAIL

Order Number: 0334276
Order Date: 6/19/2023

Sold To:

Neosho Fire Department
125 N College
Neosho, MO 64850

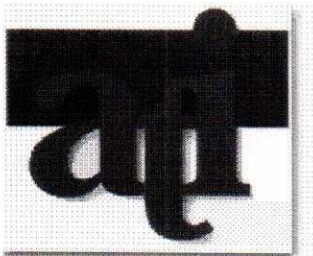
Ship To:

Neosho Fire Department
125 N College
Neosho, MO 64850

Confirm To:

Chief Aaron Houk

Customer Number		Customer P.O.		Terms	Salesperson	Ship VIA	Order Date	Order Number
02-1290485		Bid A		Net 30	0047		6/19/2023	0334276
Ordered	Shipped	BackOrder	Item Number	Item Description		Whse	Price	Amount
20.00	0.00	0.00	AA175W050-NH150	Armtex Attack 1.75"x50' White, M/F NST couplings Sections to be Stenciled on Female End A-23-01 through A-23-20		000	135.640	2,712.80
12.00	0.00	0.00	JR400Y100-SZ400	4"x100 Jafrib Yellow w/stz cplngs Sections to be Stenciled on Both Ends C-23-01 through C-23-12		000	632.400	7,588.80
2.00	0.00	0.00	JR400Y025-SZ400	Jafrib 4"x25' Yellow w/ Storz Couplings Sections to be Stenciled on Both Ends C-23-13 and C-23-14		000	254.670	509.34
10.00	0.00	0.00	AA250B050-NH250	Armtex Attack 2.5"x50' Blue, M/F NST couplings Sections to be Stenciled on Both Ends A-23-01 through A-23-10 Freight included to single location over \$7,000 <<QUOTE>> BID A		000	204.980	2,049.80



9 Vose Farm Road - Peterborough NH, 03458

Warranty Certificate

This certifies that Armored Textiles, Inc. will extend a ten-year warranty on all products contained in this shipment. All hose and couplings will be free from defects caused by materials and/or workmanship.

Damaged equipment returned to Armored Textiles, Inc. will be repaired and replaced by the company pending the outcome of a product evaluation performed by Armored Textiles, Inc. This warranty does not cover equipment that has been damaged by anything other than defective materials and/or defective workmanship. Any standard maintenance items, including seals and gaskets, are not covered by this warranty.

Armored Textiles, Inc.

BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be white in color.

Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$135.64**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$632.40**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$254.67**

- 10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.
- The hose will be BLUE in color.**
- The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.
- Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: **\$ 204.98**

**Please provide hose description/ specification and warranty information. **

**Please include any shipping cost in bid. **

**Please provide anticipated delivery date or time frame. (From date of order) **

BID FORM

Description: (To be completed by bidding party)

ATI is the brand of hose quoted for part A and B - Each hose satisfies the bid requirements in each section.

Warranty on ATI hose is 10 Years - Attached warranty document with bid.

Included product sheets w/ specs for each section bid - 3) Data Sheets Total

Freight is included when above \$7,000 and to a single location

Price(s) for unit(s) meeting enclosed specifications: \$12,860.74 (Bid A)

F.O.B. Neosho, MO

Projected Shipping Date: 56 Days from Date of Order

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: Ed M Feld Equipment Company, Inc.

ADDRESS: 1330 NW Jefferson St. Grain Valley, MO, 64029

PHONE: 712-210-5251

EMAIL: jackson@feldfire.com

BY: Jackson Simons



Part A / Bid A
hose for Section 1

Part Number AA175W050-NH150, Armtex® Attack™ 50 Available Lengths, 1 3/4 in. Size, and NST Coupling Type White Lightweight Lined Fire Hose



[Applications](#) | [Construction](#) | [Service Temperature Range](#) | [Features and Advantages](#) | [Packaging](#) | [Nominal Specifications](#) | [Specifications](#)

Applications

General Applications

- Municipal fire departments
- Industrial fire brigades
- Shipboard fire fighting

Construction

Construction

Double-jacket polyester hose with a synthetic EPDM rubber ozone resistant lining.

Abrasion Resistant Jacket

Designed with superior abrasion resistance and kink resistance to resist damage from constant working conditions, even when using low pressure and straight bore nozzles. A smooth waterway surface for lower friction loss. Jacket color options include blue,

Proof Test	800 psi
Burst Test	1200 psi
Available Lengths	50 ft
Weight Uncoupled	0.34 lbs/ft

Specifications

Brand	Armtex®
Type	Fire Hose
Material	All-Polyester Double Jacket Rubber
Warranty	10 y
Industry Standards	Meets or exceeds National Fire Protection Association (NFPA) 1961



Part A / Bid A
hose for section 2 & 3

Item # JR400Y100-SZ400, Armtex® Jafrib® 100 Available Length, 4 in. Size, and STORZ Coupling Type Yellow Layflat Fire Hose - Assembled Lengths



[General Applications](#) | [Construction](#) | [Service Temperature Range](#) | [Features and Advantages](#) | [Packaging](#) | [Nominal Specifications](#) | [Specifications](#)

General Applications

General Applications

- Specially designed for municipal fire departments, navies, petrochemical, nuclear plants, and other industrial services
- Superior nitrile/PVC rubber hose for use in supply and attack operations

Construction

Construction

Made from circularly woven 100% high tenacity synthetic yarn, completely protected and locked-in by a tough, highly resistant synthetic nitrile rubber and PVC blend extruded through the

weave and forming a single homogenous construction without the use of glues or adhesives.

Lining Properties

The tensile strength of the lining and cover shall not be less than 1,750 PSI (12,000 kPa), with an ultimate elongation of liner and cover not less than 450%.

Accelerated Aging

Lining specimens subjected to an exposure of $158^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$, for a duration of 96 hours shall be conditioned as per ASTM D 573, Standard Test Method for Rubber - Deterioration in an Air Oven. Then, the specimens shall be tested to ASTM D4112, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension, Method A. Upon evaluation, the tensile and elongation properties of the liner shall not be less than 75% of their initial values.

Abrasion Resistance

As stated in National Fire Protection Association (NFPA) 1961, Underwriters Laboratories (UL) 19 and Factory Mutual Approval Standard (FM) 2111, hose shall withstand 1 1/2 times the service test pressure without rupturing or breaking any thread in the jacket or reinforcement after 300 cycles of abrasion for a single jacketed hose. Hose assembly shall also not leak or burst after 3,000 cycles by an abrasion wheel.

Service Temperature Range

Service Temperature Range [Min]

-30 °C
-22 °F

Service Temperature Range [Max]

80 °C
176 °F

Features and Advantages

Features and Advantages

- Resistant to petroleum, chemicals and abrasion.
- Reliable and robust.
- Lightweight and flexible.
- Fast deployment and retrieval.
- Meets or exceeds National Fire Protection Association (NFPA) 1961 Standard on Fire Hose (current edition).
- ISO 9001 - ARMTEX® Jafrib® fire hose products are

manufactured in a registered facility in Barcelona, Spain.

- 10-year warranty

Packaging

Packaging

Available in 25', 50', and 100' lengths.

Nominal Specifications

Size	4 in
Color	Yellow
Coupling Size	4 in
Coupling Type	Storz
Bowl Size	4 17/32 in
Service Test	250 psi
Proof Test	500 psi
Burst Test	750 psi
Available Lengths	100 ft
Weight Uncoupled	0.81 lbs/ft

Specifications

Brand	Armtex®
Type	Fire Hose Assembly
Material	Reinforced Extruded Rubber
Warranty	10 y
	Underwriters Laboratories (UL) 19 and Underwriters Laboratories

Industry Standards

of Canada (ULC) - S511-14 Certified, Meets or exceeds National
Fire Protection Association (NFPA) 1961, International
Organization for Standardization (ISO) 9001



Part A/Bid A
hose for section 4

Part Number **AA250B050-NH250**, Armtex® Attack™ 50 Available Lengths, 2 1/2 in. Size, and NST Coupling Type Blue Lightweight Lined Fire Hose



[Applications](#) | [Construction](#) | [Service Temperature Range](#) | [Features and Advantages](#) | [Packaging](#) | [Nominal Specifications](#) | [Specifications](#)

Applications

General Applications

- Municipal fire departments
- Industrial fire brigades
- Shipboard fire fighting

Construction

Construction

Double-jacket polyester hose with a synthetic EPDM rubber ozone resistant lining.

Abrasion Resistant Jacket

Designed with superior abrasion resistance and kink resistance to resist damage from constant working conditions, even when using low pressure and straight bore nozzles. A smooth waterway surface for lower friction loss. Jacket color options include blue,

green, black, orange, purple, red, tan, white and yellow.

Service Temperature Range

Service Temperature

Remains flexible at temperatures as low as -40 °F (-40 °C).

Features and Advantages

Features and Advantages

- High Burst Rating - 1,200 psi up to 3" diameter.
- Superior Performance: Very low friction loss.
- ARMTEX® ATTACK™ is available in the sizes of 1 1/2", 1 3/4", 2", 2 1/2" and 3".
- Packs Tight - KFP's best packing and easiest to fold double-jacket, rubber-lined hose.
- Maintenance Free - Immune to mildew and rot.
- Meets or exceeds National Fire Protection Association (NFPA) 1961 Standard on Fire Hose (current edition).
- 10-year warranty.

Packaging

Packaging

Available in 25', 50', and 100' lengths.

Nominal Specifications

Size	2 1/2 in
Color	Blue
Coupling Size	2 1/2 in
Coupling Type	NST
Bowl Size	3 in
Service Test	400 psi

Proof Test	800 psi
Burst Test	1200 psi
Available Lengths	50 ft
Weight Uncoupled	0.50 lbs/ft

Specifications

Brand	Armtex®
Type	Fire Hose
Material	All-Polyester Double Jacket Rubber
Warranty	10 y
Industry Standards	Meets or exceeds National Fire Protection Association (NFPA) 1961

Quote



Box 625 113 North Griffith Road
Carroll, IA 51401
www.feldfire.com

EMAIL

Order Number: 0334279
Order Date: 6/19/2023

Sold To:

Neosho Fire Department
125 N College
Neosho, MO 64850

Ship To:

Neosho Fire Department
125 N College
Neosho, MO 64850

Confirm To:

Chief Aaron Houk

Customer Number		Customer P.O.	Terms	Salesperson	Ship VIA	Order Date	Order Number
02-1290485		Bid B	Net 30	0047		6/19/2023	0334279
Ordered	Shipped	BackOrder	Item Number	Item Description	Whse	Price	Amount
20.00	0.00	0.00	AA175W050-NH150	Armtex Attack 1.75"x50' White, M/F NST couplings Sections to be Stenciled on Female End B-23-01 through B-23-20	000	135.640	2,712.80
12.00	0.00	0.00	JR400Y100-SZ400	4"x100 Jafrib Yellow w/stz cplngs Sections to be Stenciled on Both Ends D-23-01 through D-23-12	000	632.400	7,588.80
2.00	0.00	0.00	JR400Y025-SZ400	Jafrib 4"x25' Yellow w/ Storz Couplings Sections to be Stenciled on Both Ends D-23-13 and D-23-14	000	254.670	509.34
10.00	0.00	0.00	AA250B050-NH250	Armtex Attack 2.5"x50' Blue, M/F NST couplings Sections to be Stenciled on Both Ends B-23-01 through B-23-10 Freight included to single location over \$7,000 <<QUOTE>> BID B	000	204.980	2,049.80
Box 625 113 North Griffith Road Carroll, IA 51401 www.feldfire.com						Net Order: 12,860.74 Less Discount: 0.00 Freight: 0.00 Sales Tax: 0.00 Order Total 12,860.74	
Ph: (712) 792-3143 E-mail: sales@feldfire.com Fx: (712) 792-6658 Website: www.feldfire.com Iowa Sales Tax Permit No. 1-14-004938M						Member NFPA, NAFED, I.A.F.C., I.F.A., I.F.C.A	

Fire Hose Bid Specification

BID B

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
Hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section **\$135.64**

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$632.40**

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section **\$254.67**

- 10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

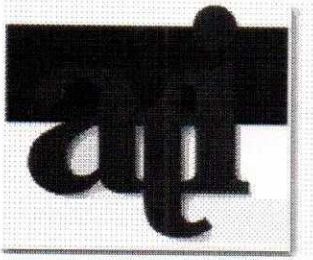
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ **\$ 204.98**

**Please provide hose description/ specification and warranty information. **

**Please include any shipping cost in bid. **

**Please provide anticipated delivery date or time frame. (From date of order) **



9 Vose Farm Road - Peterborough NH, 03458

Warranty Certificate

This certifies that Armored Textiles, Inc. will extend a ten-year warranty on all products contained in this shipment. All hose and couplings will be free from defects caused by materials and/or workmanship.

Damaged equipment returned to Armored Textiles, Inc. will be repaired and replaced by the company pending the outcome of a product evaluation performed by Armored Textiles, Inc. This warranty does not cover equipment that has been damaged by anything other than defective materials and/or defective workmanship. Any standard maintenance items, including seals and gaskets, are not covered by this warranty.

Armored Textiles, Inc.

Kenco Fire Equipment, Inc.

1810 St. Louis Street
Springfield, MO 65802
USA

Voice: 417-831-7669

Fax: 417-831-0008

QUOTATION

Quote Number: 3042

Quote Date: Jun 20, 2023

Page: 1

Quoted To:

CITY OF NEOSHO FIRE DEPT. - MO
125 N COLLEGE
NEOSHO, MO 64850
USA

Customer ID	Good Thru	Payment Terms	Sales Rep
NEOSCO	7/31/23	Net 20 Days	GREG

Quantity	Item	Description	Unit Price	Amount
20.00	KUR.HD175W050-NH150	KURIYAMA, 1.75" X 50 FT. WHITE JAFLINE HD DOUBLE JACKET POLYESTER FIRE HOSE - COUPLED 1.5" ALUMINUM NST.	154.00	3,080.00
12.00	KUR.JR400Y100-SZ400	KURIYAMA, 4" X 100 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	635.00	7,620.00
2.00	KUR.JR400Y025-SZ400	KURIYAMA, 4" X 25 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	261.00	522.00
10.00	KUR.HD250B050-NH250	KURIYAMA, 2.5" X 50 FT. JAFLINE HD BLUE POLYESTER DOUBLE JACKET FIRE HOSE, COUPLED 2.5" ALUMINUM NST.	218.00	2,180.00
**PRICES INCLUDE SHIPPING CHARGES. 7 - 8 WEEK LEAD TIME. ALL STENCILED.				
***NOTE: ALL OF THIS FIRE HOSE IS ASSEMBLED IN THE USA.				
THANKS, GREG LAWSON, 417-831-7669, greg@kencofe.com				
***THIS IS BID 'A'.				
Subtotal				13,402.00
Sales Tax				
TOTAL				13,402.00

Greg Lawson
6-20-2023

Kenco Fire Equipment, Inc.

1810 St. Louis Street
Springfield, MO 65802
USA

Voice: 417-831-7669

Fax: 417-831-0008

QUOTATION

Quote Number: 3043

Quote Date: Jun 19, 2023

Page: 1

Quoted To:

CITY OF NEOSHO FIRE DEPT. - MO
125 N COLLEGE
NEOSHO, MO 64850
USA

Customer ID	Good Thru	Payment Terms	Sales Rep
NEOSCO	7/31/23	Net 20 Days	GREG

Quantity	Item	Description	Unit Price	Amount
20.00	KUR.HD175W050-NH150	KURIYAMA, 1.75" X 50 FT. WHITE JAFLINE HD DOUBLE JACKET POLYESTER FIRE HOSE - COUPLED 1.5" ALUMINUM NST.	154.00	3,080.00
12.00	KUR.JR400Y100-SZ400	KURIYAMA, 4" X 100 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	635.00	7,620.00
2.00	KUR.JR400Y025-SZ400	KURIYAMA, 4" X 25 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	261.00	522.00
10.00	KUR.HD250B050-NH250	KURIYAMA, 2.5" X 50 FT. JAFLINE HD BLUE POLYESTER DOUBLE JACKET FIRE HOSE, COUPLED 2.5" ALUMINUM NST. *PRICES INCLUDE SHIPPING CHARGES. 7 - 8 WEEK LEAD TIME. ALL STENCILED. **NOTE: ALL OF THIS FIRE HOSE IS ASSEMBLED IN THE USA. THANKS, GREG LAWSON, 417-831-7669, greg@kencofe.com ***THIS IS BID 'B'.	218.00	2,180.00
			Subtotal	13,402.00
			Sales Tax	
			TOTAL	13,402.00

Greg Lawson
6-20-23

Kenco Fire Equipment, Inc.
1810 St. Louis Street
Springfield, MO 65802
USA

Voice: 417-831-7669
Fax: 417-831-0008

QUOTATION

Quote Number: 3044
Quote Date: Jun 20, 2023
Page: 1

Quoted To:

CITY OF NEOSHO FIRE DEPT. - MO
125 N COLLEGE
NEOSHO, MO 64850
USA

Customer ID	Good Thru	Payment Terms	Sales Rep
NEOSCO	7/31/23	Net 20 Days	GREG

Quantity	Item	Description	Unit Price	Amount
40.00	KUR.HD175W050-NH150	KURIYAMA, 1.75" X 50 FT. WHITE JAFLINE HD DOUBLE JACKET POLYESTER FIRE HOSE - COUPLED 1.5" ALUMINUM NST.	149.00	5,960.00
24.00	KUR.JR400Y100-SZ400	KURIYAMA, 4" X 100 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	627.00	15,048.00
4.00	KUR.JR400Y025-SZ400	KURIYAMA, 4" X 25 FT. YELLOW JAFRIB ARMTEX RUBBER FIRE HOSE, COUPLED 4" ALUMINUM STORZ.	256.50	1,026.00
20.00	KUR.HD250B050-NH250	KURIYAMA, 2.5" X 50 FT. JAFLINE HD BLUE POLYESTER DOUBLE JACKET FIRE HOSE, COUPLED 2.5" ALUMINUM NST.	217.00	4,340.00
**PRICES INCLUDE SHIPPING CHARGES. 7 - 8 WEEK LEAD TIME. ALL STENCILED.				
***NOTE: ALL OF THIS FIRE HOSE IS ASSEMBLED IN THE USA.				
THANKS, GREG LAWSON, 417-831-7669, greg@kencofe.com				
***THIS IS BID A/B.				
Subtotal				26,374.00
Sales Tax				
TOTAL				26,374.00

Greg Lawson
6-20-23

BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be white in color.

Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section 154.00

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 635.00

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 261.00

10

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ 218.00

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

Fire Hose Bid Specification

BID B

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

Hose will be white in color.

Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section

154.00

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section

635.00

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.

The hose will be yellow in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.

Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section

261.00

10

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ 218.⁰⁰

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

See bid A/B
attached.

BID FORM

Description: (To be completed by bidding party)

* See attached quote & specs.
→ * See attached quote for Bid A/B.

At the time this was quoted,
all of this could ship out in 5 days.
But if out of stock, it would be 7-8 weeks.
JJS

Price(s) for unit(s) meeting enclosed specifications:

7-8 weeks

F.O.B. Neosho, MO

Projected Shipping Date:

8-7-2023

A.R.O.

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY:

Kenco Fire Equipment, Inc.

ADDRESS:

1810 St. Louis St. Springfield, MO 65802

PHONE:

417-831-7669

EMAIL:

greg@kenco-fe.com

BY:

Greg Lawson
6-19-2023

Jafline® HD™

All Polyester, Double-Jacket Fire
Hose With EPDM Rubber Lining

COLORS:



General Applications:

- Municipal fire departments
- Industrial fire brigades
- Shipboard fire fighting

Construction:

Double-jacket construction: Jafline® HD™ is an all polyester double-jacket hose with an EPDM rubber ozone resistant lining.

Service Temperature Range:

All-weather performance: Retains pliability to -40°F (-40°C).

Features and Advantages:

- High Burst Rating – 1,200 psi up to 3" diameter.
- Superior Performance – Very low friction loss.
- Maintenance Free – Immune to mildew and rot.
- Coated for Better Durability – All colored hose is impregnated with our tough heat-set polymer coating for the best abrasion resistance.
- Available in blue, green, black, orange, purple, red, tan, white and yellow.
- Meets or exceeds National Fire Protection Association (NFPA) 1961 Standard on Fire Hose (current edition).
- 10-year warranty.

Packaging:

Available in 25', 50' and 100' lengths.

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.

All Polyester, Double-Jacket Fire
Hose With EPDM Rubber Lining

Nominal Specifications

Part Number*	Size (in)	Color	Coupling Size (in)	Coupling Type	Bowl Size (in)	Service Test (psi)	Proof Test (psi)	Burst Test (psi)	Available Lengths (ft)	Weight Uncoupled (lbs/ft)
HD175WXXX-NH150	1 3/4	White	1 1/2	NST	2 1/8	400	800	1200	25/50/100	0.38
HD175WXXX-NP150	1 3/4	White	1 1/2	NPSH	2 1/8	400	800	1200	25/50/100	0.38
HD175YXXX-NH150	1 3/4	Yellow	1 1/2	NST	2 1/8	400	800	1200	25/50/100	0.38
HD175YXXX-NP150	1 3/4	Yellow	1 1/2	NPSH	2 1/8	400	800	1200	25/50/100	0.38
HD200BXXX-NH150	2	Blue	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200BXXX-NP150	2	Blue	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200GXXX-NH150	2	Green	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200GXXX-NP150	2	Green	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200LXXX-NH150	2	Black	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200LXXX-NP150	2	Black	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200OXXX-NH150	2	Orange	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200OXXX-NP150	2	Orange	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200PXXX-NH150	2	Purple	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200PXXX-NP150	2	Purple	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200RXXX-NH150	2	Red	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200RXXX-NP150	2	Red	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200TXXX-NH150	2	Tan	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200TXXX-NP150	2	Tan	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200WXXX-NH150	2	White	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200WXXX-NP150	2	White	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD200YXXX-NH150	2	Yellow	1 1/2	NST	2 15/32	400	800	1200	25/50/100	0.44
HD200YXXX-NP150	2	Yellow	1 1/2	NPSH	2 15/32	400	800	1200	25/50/100	0.44
HD250BXXX-NH250	2 1/2	Blue	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250GXXX-NH250	2 1/2	Green	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250LXXX-NH250	2 1/2	Black	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250OXXX-NH250	2 1/2	Orange	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250PXXX-NH250	2 1/2	Purple	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250RXXX-NH250	2 1/2	Red	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250TXXX-NH250	2 1/2	Tan	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250WXXX-NH250	2 1/2	White	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD250YXXX-NH250	2 1/2	Yellow	2 1/2	NST	3	400	800	1200	25/50/100	0.56
HD300BXXX-NH250	3	Blue	2 1/2	NST	3 1/2	400	800	1200	25/50/100	0.74

*XXX = Available Lengths

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.

ARMTEX® JAFRIB®

Reinforced Extruded Rubber
Lay Flat Fire Hose

COLORS:



General Applications:

- Specially designed for municipal fire departments, navies, petrochemical, nuclear plants, and other industrial services
- Superior nitrile/PVC rubber hose for use in supply and attack operations

Construction:

Made from circularly woven 100% high tenacity synthetic yarn, completely protected and locked-in by a tough, highly resistant synthetic nitrile rubber and PVC blend extruded through the weave and forming a single homogenous construction without the use of glues or adhesives.

Lining Properties – The tensile strength of the lining and cover shall not be less than 1,750 PSI (12,000 kPa), with an ultimate elongation of liner and cover not less than 450%.

Accelerated Aging – Lining specimens subjected to an exposure of 158°F ± 3.6°F, for a duration of 96 hours shall be conditioned as per ASTM D 573, Standard Test Method for Rubber – Deterioration in an Air Oven. Then, the specimens shall be tested to ASTM D4112, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers- Tension, Method A. Upon evaluation, the tensile and elongation properties of the liner shall not be less than 75% of their initial values.

Abrasion Resistance – As stated in National Fire Protection Association (NFPA) 1961, Underwriters Laboratories (UL) 19 and Factory Mutual Approval Standard (FM) 2111, hose shall withstand 1 1/2 times the service test pressure without rupturing or breaking any thread in the jacket or reinforcement after 300 cycles of abrasion for a single jacketed hose. Hose assembly shall also not leak or burst after 3,000 cycles by an abrasion wheel.



Service Temperature Range:
-22°F (-30°C) to +176°F (+80°C)

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Assembled Lengths

Nominal Specifications

Part Number*	Size (in)	Color	Coupling Size (in)	Coupling Type	Bowl Size (in)	Service Test (psi)	Proof Test (psi)	Burst Test (psi)	Available Lengths (ft)	Weight Uncoupled (lbs/ft)
JR150RXXX-NH150	1 1/2	Red	1 1/2	NST	1 3/4	300	600	900	25/50/100	0.30
JR150RXXX-NP150	1 1/2	Red	1 1/2	NPSH	1 3/4	300	600	900	25/50/100	0.30
JR175RXXX-NH150	1 3/4	Red	1 1/2	NST	2 1/16	300	600	900	25/50/100	0.32
JR175RXXX-NP150	1 3/4	Red	1 1/2	NPSH	2 1/16	300	600	900	25/50/100	0.32
JR250RXXX-NH250	2 1/2	Red	2 1/2	NST	2 13/16	300	600	900	25/50/100	0.45
JR300RXXX-NH250	3	Red	2 1/2	NST	3 5/16	300	600	900	25/50/100	0.64
JR400RXXX-SZ400	4	Red	4	STORZ	4 9/32	250	500	750	25/50/100	0.81
JR500RXXX-SZ500	5	Red	5	STORZ	5 3/8	225	450	675	25/50/100	0.94
JR600RXXX-SZ600	6	Red	6	STORZ	6 3/8	200	400	600	25/50/100	1.28
JR100YXXX-NH100	1†	Yellow	1	NST	1 3/16	300	600	900	25/50/100	0.13
JR100YXXX-NP100	1†	Yellow	1	NPSH	1 3/16	300	600	900	25/50/100	0.13
JR150YXXX-NH150	1 1/2	Yellow	1 1/2	NST	1 3/4	300	600	900	25/50/100	0.30
JR150YXXX-NP150	1 1/2	Yellow	1 1/2	NPSH	1 3/4	300	600	900	25/50/100	0.30
JR175YXXX-NH150	1 3/4	Yellow	1 1/2	NST	2 1/16	300	600	900	25/50/100	0.32
JR175YXXX-NP150	1 3/4	Yellow	1 1/2	NPSH	2 1/16	300	600	900	25/50/100	0.32
JR200RXXX-NH150	2	Red	1 1/2	NST	2 9/32	300	600	900	25/50/100	0.38
JR200YXXX-NH150	2	Yellow	1 1/2	NST	2 9/32	300	600	900	25/50/100	0.38
JR250YXXX-NH250	2 1/2	Yellow	2 1/2	NST	2 13/16	300	600	900	25/50/100	0.45
JR300YXXX-NH250	3	Yellow	2 1/2	NST	3 5/16	300	600	900	25/50/100	0.64
JR400YXXX-SZ400	4	Yellow	4	STORZ	4 17/32	250	500	750	25/50/100	0.81
JR500YXXX-SZ500	5	Yellow	5	STORZ	5 3/8	225	450	675	25/50/100	0.94
JR600YXXX-SZ600	6	Yellow	6	STORZ	6 3/8	200	400	600	25/50/100	1.28

*XXX = Available Lengths

*UL19 and CAN/ULC-S511-14 certified models – All except the 1" and the 6"

† 1" Jafrib is a dark yellow

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.

Cautionary Statement

All Products sold and distributed by the Kuriyama Fire Products division of Kuriyama of America, Inc. are commodities and are sold based on each product's ability to perform within its published specifications. The Products are not sold for particular purposes, uses or applications. Purchasers and users are solely responsible for determining whether the Products are suitable for the purchaser's and user's intended purposes, uses or applications. Purchasers and users should conduct their own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories in order to determine whether the Products are suitable or proper for any intended purposes, uses or applications.

Purchasers and users shall follow all instructions contained in KFP's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including any hoses, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened to avoid leakage, prevent personal injury or property damage, and for general safety purposes.

Purchasers or users of the Products should frequently and consistently inspect the Products, including examining the tube and cover, conditions of the hose or tubing, and identifying, repairing or replacing all sections showing cracking, blistering, separations, internal or external abrasions, leaking or slipped couplings or connections, followed by conducting a proper proof test.

Kuriyama Fire Products Limited Warranty

Kuriyama Fire Products conform to NFPA standards. KFP warrants to the purchasers of its Products that the following KFP hoses will be free from defects in material and workmanship for ten (10) years from the date of sale by KFP: Jafrib, JAFx4, ARMTEX One, ARMTEX HP, double jacket ARMTEX Attack, Attack Lite, Jafline HD, Jafline and single jacket KS6. The Forest-Lite Type 1, Type 2, Mop Up, Armored Reel and FS-BLK suction hoses will be free from defects in material and workmanship for (1) one year from the date of sale by KFP. KFP nozzles will be free from defects in material and workmanship for five (5) years from the date of sale by KFP.

THIS LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

KFP's limited warranty does not apply to or cover tears or punctures caused by dragging or catching on items on the fire ground during or after suppression or training activities. It also does not apply to normal wear and tear, abrasion, snags, tears, cuts, punctures, holes, burning, melting, chemical attack or contamination, or any damage resulting from misuse, abuse, accident, mistreatment, or neglect that may leave the fire hose unfit for service. KFP's limited warranty does not apply to any Products that have been altered, modified, repaired or reworked by anyone other than KFP or that have been used in any manner that is inconsistent with the above Cautionary Statement or any instructions or specifications provided with or for the Product.

If a Product is defective, KFP shall, at its discretion, either: (1) refund the purchase price paid to KFP for the defective Products, on a non-prorated basis; (2) repair any defective Products or defective part; or (3) replace any defective Product upon its authorized return to KFP.

Limitation of Liability and Exclusion of Remedies

IN ALL SITUATIONS, THE LIABILITY OF KFP AND KURIYAMA OF AMERICA AND THE REMEDY OF ANY CUSTOMER OR USER OF THE PRODUCTS SHALL BE STRICTLY AND EXCLUSIVELY LIMITED TO THE REFUND, REPAIR OR REPLACEMENT OF THE PRODUCTS AS STATED ABOVE.

IN NO EVENT SHALL KFP, KURIYAMA OF AMERICA, ITS AFFILIATES OR ANY MANUFACTURER OF THE PRODUCTS BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, WHETHER OR NOT CAUSED BY OR RESULTING FROM ANY NEGLIGENCE BY KFP AND/OR THE PRODUCT MANUFACTURER.

07/2020 REV

BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS OR DISCONTINUE PRODUCTS WITHOUT PRIOR NOTICE.





NAFECO
1515 West Moulton Street
Decatur, AL 35601
Phone: 800-628-6233

info@nafeco.com

QUOTE

Quote Number: 1203121

Date: 6/20/23

Quote Expiration: EXPIRES 30 DAYS

To: NEO200

NEOSHO FIRE DEPARTMENT
125 N.COLLEGE
NEOSHO, MO 64850
United States of America

F.O.B. Point: DESTINATION

Salesperson: Michael Brammer (AR / East OK)

Quote Prepared By: Brittany Barber

Qty.	U/M	Item No.	Description	Each	Amount
			BID A		
			~~~~~		
20	EA	DP17WX50-800ECO	Key Fire Hose, 1.75" x 50' White, DJ, ECO, 800 PSI, 1.5"NH	132.50	2,650.00
			PLEASE STENCIL HOSE WITH BLACK INK ON FEMALE END OF		
			HOSE, USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"A-23-01" THROUGH "A-23-20"		
12	EA	RC40X100Y40S	Key Fire Hose, 4.0" x 100' Yellow, Rubber, 500PSI, 4" Stz	709.95	8,519.40
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"C-23-01" THROUGH "C-23-12"		
2	EA	RC40X25Y40S	Key Fire Hose, 4.0" x 25' Yellow, Rubber, 500PSI, 4"Stz	360.25	720.50
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"C-23-13" THROUGH "C-23-14"		
10	EA	DP25BX50-800ECO	Key Fire Hose, 2.5" x 50' Blue, DJ, ECO, 800 PSI, 2.5"NH	206.95	2,069.50
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"A-23-01" THROUGH "A-23-10"		
			Sub-Total:		\$13,959.40
			Quote Total:		\$13,959.40

**Thank you for your business !**

*NOTE: All accounts are subject to sales tax charges unless a valid state tax exempt certificate is on file with NAFECO, or provided at the time of the order.*

**If you have any questions concerning this quote, please call our number listed above.**

**Visit Us On The Internet At: [www.nafeco.com](http://www.nafeco.com)**

**Page: 1**

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NAFECO  
1515 West Moulton Street  
Decatur, AL 35601  
Phone: 800-628-6233

info@nafeco.com

# QUOTE

**Quote Number: 1203119**

**Date: 6/20/23**

**Quote Expiration: EXPIRES 30 DAYS**

**To: NEO200**

NEOSHO FIRE DEPARTMENT  
125 N.COLLEGE  
NEOSHO, MO 64850  
United States of America

**F.O.B. Point: DESTINATION**

**Salesperson: Michael Brammer (AR / East OK)**

**Quote Prepared By: Brittany Barber**

Qty.	U/M	Item No.	Description	Each	Amount
			BID B		
			~~~~~		
20	EA	DP17WX50-800ECO	Key Fire Hose, 1.75" x 50' White, DJ, ECO.800 PSI,1.5"NH	132.50	2,650.00
			PLEASE STENCIL HOSE WITH BLACK INK ON FEMALE END OF		
			HOSE, USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"B-23-01" THROUGH "B-23-20"		
12	EA	RC40X100Y40S	Key Fire Hose, 4.0" x 100' Yellow, Rubber, 500PSI, 4" Stz	709.95	8,519.40
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"D-23-01" THROUGH "D-23-12"		
2	EA	RC40X25Y40S	Key Fire Hose, 4.0" x 25' Yellow, Rubber, 500PSI, 4"Stz	360.25	720.50
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			USING ONE NUMBER PER HOSE, PER THE FOLLOWING:		
			"D-23-13" THROUGH "D-23-14"		
10	EA	DP25BX50-800ECO	Key Fire Hose, 2.5" x 50' Blue, DJ, ECO. 800 PSI, 2.5"NH	206.95	2,069.50
			PLEASE STENCIL HOSE WITH BLACK INK ON BOTH ENDS OF HOSE		
			BLACK INK ON BOTH ENDS OF HOSE PER THE FOLLOWING:		
			"B-23-01" THROUGH "B-23-11"		
			Sub-Total:		\$13,959.40
			Quote Total:		\$13,959.40

Thank you for your business !

NOTE: All accounts are subject to sales tax charges unless a valid state tax exempt certificate is on file with NAFECO, or provided at the time of the order.

If you have any questions concerning this quote, please call our number listed above.

Visit Us On The Internet At: www.nafeco.com

Page: 1

Page 60 of 140

BID FORM

Description: (To be completed by bidding party)

See attached Key hose information including spec sheets and warranty information.

Freight is included in the bid price.

Delivery is approximately 20 to 24 weeks after receipt of order.

Price(s) for unit(s) meeting enclosed specifications:

F.O.B. Neosho, MO

Projected Shipping Date: 20 to 24 weeks after receipt of order.

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: North America Fire Equipment Co., Inc. (NAFECO)

ADDRESS: 1515 West Moulton Street, Decatur, AL 35601

PHONE: 800-628-6233 or 256-353-7100

EMAIL: ronald.woodall@nafeco.com

BY: Ronald Woodall, Vice President

Ronald Woodall

BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section \$132.50

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section \$709.95

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section \$360.25



10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ \$206.95

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****



Fire Hose Bid Specification

BID B

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
Hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section \$132.50

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section \$709.95

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section \$360.25



10 50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ \$206.95

**Please provide hose description/ specification and warranty information. **

**Please include any shipping cost in bid. **

**Please provide anticipated delivery date or time frame. (From date of order) **



KEY-100

LIGHTWEIGHT RUBBER LINED FIRE HOSE

MADE IN
USA



THIS IS KEY

Lightweight, double jacket construction, combining 100% premium ring spun staple and filament polyester fibers over a thin wall, high tensile, EPDM rubber liner. The outer jacket is mildew resistant and available with double dip "Key-Lok" polyurethane based polymer impregnation for abrasion and moisture resistance. A proprietary reverse twill weave construction reduces friction loss, while engineered yarn selections lighten the hose up to 25% compared to competitive offerings. This reliable, double jacket fire hose with Key-Lok treatment is tested to 600 and 800 psi, meets MIL-H-24606 latest edition and is UL Listed*. Features a 10-year warranty and lifetime liner delamination guarantee.

KEY HOSE

DOUBLE JACKET ATTACK/SUPPLY HOSE



RUBBER LINED FIRE HOSE

Eco-10

LIGHTWEIGHT DOUBLE JACKET RUBBER LINED HOSE

Diameter	Part No.	Service Test	Proof Test	Burst Test	Bowl Size	Weight Uncoupled
1"	DP10-800	400 psi	800 psi	1200 psi	1 3/8"	0.14 lbs/ft
1 1/2"	DP15-800-ECO	400 psi	800 psi	1200 psi	1 5/8"	0.23 lbs/ft
1 3/4"	DP17-800-ECO	400 psi	800 psi	1200 psi	2 1/8"	0.28 lbs/ft
2"	DP20-800	400 psi	800 psi	1200 psi	2 2/5"	0.31 lbs/ft
2 1/2"	DP25-800-ECO	400 psi	800 psi	1200 psi	3"	0.42 lbs/ft
3"	DP30-800-ECO	400 psi	800 psi	1200 psi	3 3/8"	0.56 lbs/ft
4"	DP40-600	300 psi	600 psi	900 psi	4 1/2"	0.82 lbs/ft
5"	DP50-600	300 psi	600 psi	900 psi	5 1/2"	0.93 lbs/ft

*UL Listed to 400 psi | **UL Listed to 400 psi and FM Approved

Scope

Hose manufactured to this specification shall be of superior quality and workmanship. The hose shall withstand the rough usage of front line fire fighting. Hose specified shall meet NFPA 1961 standards. Hose furnished under these specifications will have a potential service life and warranty of 10 years with a lifetime warranty against liner delamination, barring mistreatment that would render it unfit for service. Upon delivery, the hose shall be free from defects in materials and workmanship.

Jacket Construction

Double jacket hose manufactured to this specification shall be tightly woven with filament polyester yarn in the filler and ring spun polyester yarn in the warp of both the inside and outside jackets. Inside jackets manufactured from 100% filament polyester would not meet Eco-10 minimum standards. The hose shall be resistant to most chemicals and petrol products, and resist deterioration due to exposure to UV rays and ozone. It shall not be affected by rot or mildew. Eco-10 double jacket hose may be woven with a double tracer stripe for ease in identification and twist. The inside and outside jackets shall be manufactured with a minimum pick count of 11 picks per inch for increased strength and abrasion resistance. The inside jacket shall be manufactured using a reverse twill process to reduce friction loss. The inside jacket shall be manufactured on a circular loom in a clockwise direction and the outside jacket in a counter-clockwise direction. The hose must be of sufficient body and weight to meet the demands of fire fighting usage.

Abrasion

Hose assemblies shall be available with the special "Key-Lok" polyurethane based polymer impregnation for added abrasion resistance and ease in identification purposes. Impregnated hose shall meet the requirements of MIL-H-24606 latest edition for abrasion resistance. NFPA colors may be specified by the end-user. A double dip process for twice the abrasion resistance is available upon request.

Lining

The rubber lining shall be a single-ply extruded tube of synthetic high tensile EPDM compounded to resist ozone. The finished form shall be free of pits or other imperfections and have a smooth finish for better flow characteristics. Polyurethane tubes, SBR and/or PVC tubes that sacrifice durability of the hose life for the sake of weight are not acceptable. The tube thickness shall be a minimum of .020". The adhesion between the tube and jacket shall meet a minimum requirement of 12 pounds on a 1 1/2" strip when tested in accordance to UL-19 standards. Minimum tensile strength requirements for the finished tube requirement shall be 1800 psi. A valid UL/ULC Underwriters inspection procedure shall be in force.

Couplings

Eco-10 can be coupled with 6061-T6 extruded aluminum threaded couplings or forged Storz. Brass, special threads or other custom features available upon request. Barcode recess available at additional charge.

Performance

The minimum burst test pressure, when tested in accordance to NFPA 1961, on all Eco-10 diameters up to 3" shall be 1200 psi / 82 bar. Minimum burst test requirements for 4" and 5" diameters shall be 900 psi / 62 bar. Service test pressures stenciled on the hose shall be in accordance with current minimum requirements of NFPA 1962. *A valid UL/ULC Underwriters 800 psi / 55 bar listing shall be in force. Lengths available up to 100'.

Standards

Fire hose manufactured to this specification shall meet all performance requirements of NFPA 1961 and Underwriters Laboratories standards.

Colors



Key Hose reserves the right to modify any specification without prior notice to meet or exceed changing standards. For more information please contact a Key Hose authorized distributor. 03/19

"The Hose Company"

P.O. Box 7107, Dothan, Alabama 36302 | 800.447.5666 | Fax: 800.447.5664 | keyhose.com

PRO-FLOW

HEAVY DUTY LARGE DIAMETER HOSE



THIS IS KEY

A lightweight, heat resistant, large diameter supply hose that delivers superior flow during fireground operations. Ozone and chemical resistant, the nitrile/PVC through-the-weave design allows the hose to expand under pressure — decreasing friction loss and increasing water flow. The thin rib rubber outer cover offers increased resistance to impact, punctures and abrasion. Reliable, maintenance-free and no drying required, make this the ideal supply hose for municipal and industrial fire departments. NFPA compliant and UL Listed*.



LIGHTWEIGHT SUPPLY HOSE



LARGE DIAMETER

PRO-FLOW

LARGE DIAMETER RUBBER COVERED SUPPLY HOSE

Diameter	Part No.	Service Test	Proof Test	Burst Test	Bowl Size	Weight Uncoupled
3"	RC30-600	300 psi	600 psi	900 psi	3 3/8"	0.60 lbs/ft
4"	RC40-500	250 psi	500 psi	750 psi	4 1/4"	0.74 lbs/ft
5"	RC50-450	225 psi	450 psi	675 psi	5 1/4"	0.93 lbs/ft
6"	RC60-450	225 psi	450 psi	675 psi	6 1/4"	1.35 lbs/ft

*UL Listed to 300 psi | **UL Listed to 200 psi

Hose Construction

Hose shall be made from 100% high tenacity synthetic polyester yarn, circularly woven and completely protected by a through-the-weave extruded PVC/Nitrile rubber, forming a single homogeneous construction without the use of glues or adhesives of any type. Pro-Flow features a thin rib construction to aid abrasion resistance. Pro-Flow meets or exceeds requirements of NFPA 1961. Pro-Flow shall carry a 10-year written warranty against defects in materials and workmanship. Lengths available up to 100'.

Lining Properties

Ultimate Tensile Strength - Tensile strength of the lining and cover shall not be less than 1200 psi.

Ultimate Elongation - 400% minimum.

Accelerated Aging Test - The tensile strength and ultimate elongation of the vulcanized rubber compound which has been subjected to the action of oxygen at a pressure of 300 psi (± 10 psi) and a temperature of 158 °F (± 18 °F) for a period of 96 hours shall retain 60% of its originally stated properties.

Abrasion Resistance

Hose shall withstand 10,000 cycles on the Taber Abrasion Machine (H-22 Wheel: 0.5 kg), without exposing the liner. Key Hose, on request, will supply written warranties that Pro-Flow hose meets a minimum 10,000 cycles. Other abrasion test results (UL, DIN, etc.) can be supplied on request of purchaser.

Cold Resistance

Hose shall have a capability of use down to -35 °F. Hose shall have no apparent damage to cover, reinforcement or lining when subjected to the following cold flexibility test: a 50' length of dry hose is to be firmly coiled and placed in a cold box at -35 °F for a duration of 24 hours. Immediately after removal of the hose from the box, hose should be uncoiled and laid out by one operator.

Ozone Resistance

Hose shall show no visible signs of cracking to the lining or cover when tested in accordance to ASTM D518 Procedure B (100 pphm / 118 °F / 70 hours).

Chemical Resistance

Exposure to sea water and contamination by most chemical substances, hydrocarbons, oils, alkalis, acids and greases must have no effect on the short or long term performance of the hose. A chemical resistance chart is available and Key Hose will supply specific chemical resistance data on request of purchaser for unique applications.

Heat Resistance

The hose, when subjected to a static pressure of 100 psi, shall be capable of withstanding a surface temperature of 1200 °F for a minimum of one minute without rupture or damage to the synthetic reinforcement.

Couplings

Pro-Flow coupling options are as required by purchaser, expansion ring threaded, Storz clamp ring, etc.

Colors



Red



Yellow

Other colors available upon request



Key Hose reserves the right to modify any specification without prior notice to meet or exceed changing standards. For more information please contact a Key Hose authorized distributor.

02/19



"The Hose Company"

YOUR KEY TO QUALITY

"You never get a second chance to make a first impression"

At **Key Hose** we live by those words. **Key Hose** understands that you are a discriminating customer and will not settle for a second rate product. Therefore, we are dedicated to the manufacture and delivery of only quality goods at the most competitive prices.

In an effort to ensure the highest confidence in our products, we have developed the **"KEY TO QUALITY"** warranty program.

Under our warranty and service program:

- All fire hose we furnish has a guaranteed service life from one year up to ten years as specified on product specification . This does not include mistreatment, accidental damage, or normal wear and tear that would render the product unfit for service. See specifications.
- All hose shall be free from defects in materials and workmanship for the full warranty life.
- All fire hose we furnish is 100% immune to mildew or rotting.

If you have any questions regarding our products, do not hesitate to contact one of our customer service representative's toll free (800) 447-5666.

We would like you to remember **Key Hose** as the **"KEY TO QUALITY"** for all your fire hose needs.

www.keyhose.com



SENTINEL EMERGENCY SOLUTIONS
2900 TELEGRAPH RD.
ST. LOUIS MO 63125

sales@sentineles.com
 800.851.1928
 314.939.1999

PROPOSAL

Date	Quote #
6/22/2023	9926

Bill To:
CITY OF NEOSHO FIRE DEPT. 125 N. COLLEGE STREET NEOSHO, MO 64850

Ship To
CITY OF NEOSHO FIRE DEPT. 125 N. COLLEGE STREET NEOSHO, MO 64850

Terms		Rep	Proposal Good Throu...	Freight	Submitted by	
Net 20		DU	30-days	Included	DU	
Qty	Item	Vendor	Description	Cost	Total Sale Price	
20	DP17-800-ECO-50...	KEY	1-3/4" X 50 foot; ECO-10; Lightweight Double Jacket, Rubber Lined Attack Hose with 1-1/2" rocker lug male/female, NST couplings:10 year warranty ..Color: WHITE	150.08	3,001.60	
12	RC40-500x100ft	KEY	4" X 100 foot; Pro Flow large diameter, rubber covered, supply hose; 4" storz couplings:..10 year warranty..Stencil: Up to 25 characters..Color: Hi-Visibility YELLOW	686.84	8,242.08	
2	SPECIAL ORDER	KEY	4" X 25 foot; Pro Flow large diameter, rubber covered, supply hose; 4" storz couplings:..10 year warranty..Stencil: Up to 25 characters..Color: Hi-Visibility YELLOW	341.88	683.76	
10	DP25-800-ECO-50...	KEY	2.5" X 50 foot; ECO-10; Lightweight Double Jacket, Rubber Lined Attack Hose with 2.5" rocker lug male/female, NST couplings:..10 year warranty ..Colors available: Red, Yellow, Blue, Green, Orange, Black, Tan	201.32	2,013.20	

THANK YOU for the opportunity to quote this.
We appreciate your business.

Total	\$13,940.64
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SENTINEL EMERGENCY SOLUTIONS
2900 TELEGRAPH RD.
ST. LOUIS MO 63125

sales@sentineles.com
800.851.1928
314.939.1999

PROPOSAL

Date	Quote #
6/22/2023	9927

Bill To:
CITY OF NEOSHO FIRE DEPT. 125 N. COLLEGE STREET NEOSHO, MO 64850

Ship To
CITY OF NEOSHO FIRE DEPT. 125 N. COLLEGE STREET NEOSHO, MO 64850

Terms		Rep	Proposal Good Throu...	Freight	Submitted by	
Net 20		DU	30-days	Included	DU	
Qty	Item	Vendor	Description	Cost	Total Sale Price	
40	DP17-800-ECO-50...	KEY	1-3/4" X 50 foot; ECO-10; Lightweight Double Jacket, Rubber Lined Attack Hose with 1-1/2' rocker lug male/female, NST couplings:10 year warranty ..Color: WHITE	150.08	6,003.20	
24	RC40-500x100ft	KEY	4" X 100 foot; Pro Flow large diameter, rubber covered, supply hose; 4" storz couplings:..10 year warranty..Stencil: Up to 25 characters..Color: Hi-Visibility YELLOW	686.84	16,484.16	
4	SPECIAL ORDER	KEY	4" X 25 foot; Pro Flow large diameter, rubber covered, supply hose; 4" storz couplings:..10 year warranty..Stencil: Up to 25 characters..Color: Hi-Visibility YELLOW	341.88	1,367.52	
20	DP25-800-ECO-50...	KEY	2.5" X 50 foot; ECO-10; Lightweight Double Jacket, Rubber Lined Attack Hose with 2.5" rocker lug male/female, NST couplings:..10 year warranty ..Colors available: Red, Yellow, Blue, Green, Orange, Black, Tan	201.32	4,026.40	

THANK YOU for the opportunity to quote this.
We appreciate your business.

Total	\$27,881.28
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BID SPECIFICATIONS:

The bid packet is for the purchase of Fire Hose:

There are 2 bids in this section. Bids are to be done and returned as Bid A, Bid B, and Bid A/B where the 2 bids are combined together.

Fire Hose Bid Specification

BID A

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be white in color.
Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with A-23-01 and continuing through A-23-20 at the female end of the hose.
Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section 150.⁰⁰

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with C-23-01 and continuing through C-23-12 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 696.⁸⁴

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America.
The hose will be yellow in color.
The hose shall be factory stenciled with **BLACK ink** and using the following format: beginning with C-23-13 and continuing through C-23-14 at both ends of the hose.
Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 341.⁸⁸

10

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with A-23-01 and continuing through A-23-10 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ 201.32

**Please provide hose description/ specification and warranty information. **

**Please include any shipping cost in bid. **

**Please provide anticipated delivery date or time frame. (From date of order) **

Fire Hose Bid Specification

BID B

Quantity

- 20 50 feet section(s) of 1.75-inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 1.5-inch NH/NST threads, female 1.5-inch swivel NH/NST threads. Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America. **Hose will be white in color.** Hose shall be factory stenciled with **BLACK Ink** and using the following format: beginning with B-23-01 and continuing through B-23-20 at the female end of the hose. Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section 150.⁰⁰

- 12 100-foot section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America. **The hose will be yellow in color.** The hose shall be factory stenciled with **BLACK Ink and** using the following format: beginning with D-23-01 and continuing through D-23-12 at both ends of the hose. Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 686.⁸⁴

- 2 25 feet section(s) of 4-inch rubber hose. The hose material will be Nitrile/PVC through-the-weave construction. Couplings will be locking aluminum 4-inch Storz (sexless). Hose shall meet all NFPA standards for fire hose and be manufactured in the United States of America. **The hose will be yellow in color.** The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with D-23-13 and continuing through D-23-14 at both ends of the hose. Pressure tested to: Service-250 psi, Proof-500 psi, Burst-750 psi.

Price per section 341.⁸⁶

10

50 feet section(s) of 2 ½ inch polyester double jacketed fire hose with rubber lining. (Mildew resistant) Pyrolite or aluminum couplings, male 2 ½ inch NH/NST threads, female 2 ½ inch swivel NH/NST threads. Hose shall meet all NFPA standards. And be made in the United States of America.

The hose will be BLUE in color.

The hose shall be factory stenciled with **BLACK ink and** using the following format: beginning with B-23-01 and continuing through B-23-11 at both ends of the hose.

Pressure tested to: Service-400 psi, Proof-800 psi, Burst-1200 psi.

Price per section: \$ 201.72

****Please provide hose description/ specification and warranty information. ****

****Please include any shipping cost in bid. ****

****Please provide anticipated delivery date or time frame. (From date of order) ****

BID FORM

Description: (To be completed by bidding party)

All hose pricing includes stenciling.
All double jacket water hose is sealed + treated.
White hose has been sealed.

ECO-10 see incert.
PRV-Flow see incert.

Price(s) for unit(s) meeting enclosed specifications:

F.O.B. Neosho, MO

Projected Shipping Date:

T.B.D. at time of order

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: Sentinel Emergency Solutions, LLC
ADDRESS: 2900 Telegraph Rd. St. Louis, MO 63125
PHONE: 800-851-1928
EMAIL: davidurevich@sentineles.com
BY: Dave Urevich

Company Name	Bid A	Bid B	Bid A/B
Feld Fire	\$12,860.74	\$12,860.74	\$25,721.48
Kenco	\$13,402	\$13,402	\$26,374
Sentinel	\$13,940.64	\$13,940.64	\$27,881.28
Leo M Ellebracht	\$12,488.46	\$12,488.46	\$24,976.92
NAFECO	\$13,959.40	\$13,959.40	\$27,918.80

REQUESTED COUNCIL MEETING DATE: July 6, 2023

ITEM: City Hall - Auditorium Roofing Bid

ORIGINATING DEPARTMENT: Development Services Department

ATTACHMENT:

1. City Hall-Auditorium Bid Packet
 2. Guarantee Roofing, Incorporated Bid
 3. Phillip Camerer Bid
-

PURPOSE:

The purpose of this item is to receive the council's consent to accept a bid for repairs and replacing the roofing on the City Hall and Auditorium

BACKGROUND:

The roofs on both the City Hall and Auditorium leak in multiple locations and the leaks are causing damage. Both roofs have significant age to them and have been repaired several times.

Staff developed a bid packet that was emailed to five local roofing companies and posted on the city's website. We received three inquiries and two bids for the project. Guarantee Roofing's bid was \$366,040.00 and Camerer Roofing's bid was \$372,000.

RECOMMENDATION:

Staff recommends accepting the bid from Guarantee Roofing for \$366,040.00.



City of Neosho

203 E. Main St.
Neosho, MO 64850
(417) 451-8050 phone
(417) 451-8065 fax
www.neoshomo.org

INSTRUCTIONS TO BIDDERS

The City of Neosho, Missouri will accept *printed and sealed* bids until **Tuesday, June 27, 2023 at 10:00 a.m.** at the Receptionist Desk of City Hall, Attn: City Clerk, 203 East Main Street, Neosho, MO 64850. The bid will be for the following:

Project: City Hall and Municipal Auditorium Roofing Projects

Please label the envelope:

**City Hall and Municipal Auditorium Roofing
Bid Opening June 27, 2023 @10:00 a.m.**

Questions concerning the specifications and bid procedure should be directed to Richard Leavens, Developmental Services Director, at the follow address/phone: 417-451-8050, 203 E. Main St. Neosho, MO 64850.

All bids shall be F.O.B., Neosho, MO. All bids shall be exclusive of federal, state, and city taxes. Bids on these projects shall be made on forms furnished with these specifications. Additional information, specifications, deviations, and manufacturer's literature should be attached to bid forms. All bids should include the turnaround time in getting started on this project.

In section 605.040 of the City of Neosho code, it states that if a contractor performs work for the City a performance bond is required.

Section 605.040 Certain Insurance Policies, Etc., Required Before Issuance of Licenses for Plumbers, Electricians, Contractors, and Subcontractors is amended to read as follows:

"A. In addition to payment of the license fees required of plumbers, electricians and general and special contractors and subcontractors in Section 605.010, before a plumber's, electrician's or general or special subcontractor's license may be issued to any applicant, each applicant shall produce for the inspection and approval of the City Collector the following policies of insurance together with receipts showing the premiums fully paid for the period for which the license is sought:

1. Bodily injury insurance liability coverage of twenty-five thousand dollars (\$25,000.00) per incident.
2. Property damage, twenty-five thousand dollars (\$25,000.00).
3. Bonding requirements.

a. If a contractor performs work within the City limits of Neosho, a license and permit bond, ten thousand dollars (\$10,000.00).

b. Unless otherwise provided, if a contractor performs work for the City of Neosho, the cost of which is estimated to exceed fifty thousand dollars (\$50,000.00), a performance bond running to the City, to the contract amount.

B. In addition to the requirements set forth above by this Section and the license fees required to be paid, each applicant for a plumber's license shall comply with all provisions of the Plumbing Code of the City.”

If this project is in reference to a Stormwater Runoff Project, please reference Section 430.188 of City Code that states:

A. *Performance Bonds and Other Assurances for Completion of Stormwater Management Improvements.* Upon approval of the Final Stormwater Management Plan, but before the issuance of building permit, the City Building Inspector may require the applicant to post a performance bond, cash escrow, certified check, or other acceptable form of performance security for the amount of the work to be done pursuant to the approved Stormwater Management Plan.

B. *Maintenance Agreement.* A maintenance agreement, approved by the Governing Body of the City of Neosho, assuring perpetual maintenance of stormwater management improvements shall be agreed upon by the City and the applicant, if the facilities are to be maintained by the developer.

C. *Maintenance Bond.* A two (2) year maintenance bond against defects in workmanship may be required by the City for any portion of the stormwater management improvements dedicated to the public.

*Missouri Prevailing Wage Rate if over \$75,000.00 (*A copy of the Missouri Prevailing Wage Rate is attached*)

*Payment Bond Required for projects over \$50,000.00

*City of Neosho Business License required

*W-9 Required

* Proof of Workers Compensation Coverage Provided w/ Bid

The City reserves the right to reject any or all bids and to accept the lowest or best bid. The City reserves the right to split bids, if in the best interest of the City.

Thank you,

David Kennedy
City Manager

BID SPECIFICATIONS:

The bid packet is for the purchase of:

City Hall and Municipal Auditorium Roofing Repair and Replacement

The City of Neosho is requesting bids for the repair and replacement of the roofing systems on the City Hall and Municipal Auditorium buildings.

Project Scope:

1. Remove and properly dispose of all existing flashing, wet roof insulation (per thermal scans provided), roof top debris as to provide a suitable substrate for the installation of the new roof system include wet roof insulation removal and replacement within scope of work.
2. The existing roof membrane is to be cut into sections as required by the roof manufacturer's latest printed recommendations.
3. Remove and store existing coping cap for reuse.
4. Install new ½" fiberglass reinforced gypsum board (Securerock) mechanically attached to the steel decking with new #12 screw type fasteners and 3-inch steel fastener plates in strict accordance with the roofing material manufacturer's latest printed recommendations.
5. Auditorium only, install new ½" fiberglass reinforced gypsum board (Securerock) adhere to underlying insulation with approved adhesive at concrete deck locations in strict accordance with the roofing material manufacturer's latest printed recommendations.
6. Install new fully adhered white .060" TPR single-ply roofing membrane system.
7. Install new fully adhered .060." TPO single ply flashing at all perimeters and projections.
8. Install new metal counter flashings as needed.
9. Reinstall existing prefinished steel coping cap at parapet walls.
10. Install new prefinished steel edge metal at gutter edge. Existing guttering and downspout to remain undisturbed.
11. Install new stainless steel draw bands at pipe locations.
12. Provide all necessary mechanical and electrical disconnect required for the installation of the new roofing system.
13. Ensure that all downspouts are clear of all debris and function as intended.

14. Provide twenty (20) year roof manufacturer's labor and material warranty.
15. Provide contractor's two-year labor and material warranty.
16. Approved roof system manufacturers; Johns Manville
17. The contractor shall be an approved warranty qualified applicator in good standing with the roof manufacturer.
18. contractor shall be a local contractor office base within 50 miles of the project site.

The City of Neosho reserves the right to refuse any bid and/or accept the bid considered most responsible.

Equipment Schedule:

Note:

This bid should include the start date for this project.

BID FORM

Description: (To be completed by bidding party)

Price(s) for unit(s) meeting enclosed specifications:

F.O.B. Neosho, MO

Projected Shipping Date: _____

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: _____

ADDRESS: _____

PHONE: _____

EMAIL: _____

BY: _____

AFFIDAVIT of COMPLIANCE
Section 285.530.2

State of Missouri) ss

County of _____)

Now this ____ day of _____, 20__, the undersigned, being first duly sworn, deposes and says:

1. I am more than 18 years of age.
2. I make this affidavit from my personal knowledge of the facts stated herein or upon information and facts available to me as a duly authorized owner, partner, corporate or LLC officer or Human Relations Director of _____ (name of Corporation, LLC, sole proprietorship or partnership)
3. I am authorized to make this affidavit on behalf of _____. (name of business entity, same as above)
4. I state and affirm that _____ is enrolled and is (name of business entity, same as above) currently participating in E-Verify, a federal work authorization program or another equivalent electronic verification of work authorization program operated by the United States Department of Homeland Security under the Immigration Reform and Control Act of 1986.
5. Further, _____ does not knowingly employ any person
(name of business entity, same as above)
who is an unauthorized alien.
6. Further, _____ has performed an electronic
(name of business entity, same as above)
verification check as described above on all workers hired since January 1, 2009 or obtained documents required for completion of a federal I-9 form before it began participating in E-Verify.
7. Attached to this affidavit is a true and accurate copy of this company's Memorandum of Understanding with the United States concerning the use of E-Verify.

I certify under penalty of perjury that the statements above are complete, true and accurate to the best of my knowledge and belief. _____

Authorized Agent, Partner, Owner or Officer

If business has a Human Relations Director or equivalent that person must sign as an affiant as well.

I certify under penalty of perjury that the statements above are complete, true and accurate to the best of my knowledge and belief.

Human Relations Director

This form is promulgated pursuant to 15CSR 60-15-.020. Use of this form is not required but the Attorney General has deemed this affidavit sufficient in form to satisfy the requirements of section 285.540, RSMo., Supp. 2008

FURTHER THE AFFIANT SAYETH NOT

(Signature)

On this ____ day of _____ in the year 20____, before me, _____
_____, a Notary Public in and for said State, personally appeared _____
_____, known to me to be the person who executed the within affidavit, and acknowledged to me that he/s
he executed the same for the purposes therein stated.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the cou
nty and State aforesaid, the day and year first above written.

Notary Public

My Commission Expires

BID FORM

Description: (To be completed by bidding party)

Remove and replace 400 Sq. ft. of wet insulation

Vent existing roof. Mechanically attach 1/2 inch secure rock to existing roof.

Fully adhere 60 mil. TPO to entire roof. Remove and replace all flashings at penetrations.

Remove all trash from job site.

Install entire roof to achieve a 20 year NO Dollar Warranty.

Provide 2 year Contractor workmanship warranty.

Price(s) for unit(s) meeting enclosed specifications: Civic Center/Auditorium - \$168,410.00

City Hall - \$197,630.00

F.O.B. Neosho, MO

Total -

\$366,040.00

Projected Shipping Date: Depending on availability of Material

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: Guarantee Roofing, Incorporated

ADDRESS: 4570 N. Blackcat Road Joplin, MO 64801

PHONE: 417-437-7577

EMAIL: dmclean.gri@gmail.com

BY:



David McLean, President

BID FORM

Description: (To be completed by bidding party)

Bid Per spec City Hall \$ 216,000

Bid Per spec Neosho Auditorium \$ 156,000

Both Roofs

Total \$ 372,000

Price(s) for unit(s) meeting enclosed specifications:

All Labor, Material
& WARRANTY

F.O.B. Neosho, MO

Projected Shipping Date: _____

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: _____

ADDRESS: _____

PHONE: _____

EMAIL: ~~Phillip Camerer At~~ Phillip At Phillip Camerer

BY: _____ Roofing Dot Com

Phillip Camerer



SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: City Hall and Municipal Auditorium Roofing Substitution Request Number: _____
From: Jane Carr, Business Development Project Support Supervisor
To: Richard Leavens Date: June 20, 2023
City of Neosho A/E Project Number: _____
Re: Equal Product Substitution Request Contract For: _____

Specification Title: Single Ply TPO Membrane Roofing
Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: Mule-Hide Products' 60 mil TPO roof system, including all components and accessories
Manufacturer: Mule-Hide Products Address: 1195 Prince Hall Drive, Beloit, WI 53511 Phone: 608-361-6806
Trade Name: _____ Model No. TPO-c 60 Reinforced Membrane

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation. **This is a direct substitution with an equal product based on the specified installation. Acceptance of this request will cause no changes in building design or construction costs to the building owner

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. This is a direct substitution with an equal product based on the specified installation. Acceptance of this request will cause no changes in building design or construction costs to owner.

Submitted by: Jane Carr, Business Development Project Support Supervisor

Signed by: Jane Carr
Firm: Mule-Hide Products Co, Inc.
Address: 1195 Prince Hall Drive
Beloit, WI 53511
Telephone: 608-361-6806 or 608-718-4246

A/E's REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: _____

Date: _____

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☒ Reports ☐ _____

*samples upon request

"The name trusted in roofing since 1906"



June 20, 2023

City of Neosho
203 E. Main Street
Neosho, MO 64850

Re: Equal Product Substitution Request
City Hall and Municipal Auditorium Roofing

Attn: Richard Leavens

Mule-Hide Products is requesting approval for the use of a Mule-Hide TPO roof system on behalf of our warranty eligible contractors.

This proposed substitution meets or exceeds current ASTM standards and is equal to or superior in all aspects to the specified products. In addition, Mule-Hide Products will provide the specified system warranty.

I have included the formal substitution request along with the TPO membrane product data sheets, ICC-ES Report, and a sample warranty for your review. Please feel free to contact me if you would like additional information or product samples.

Thank you for your consideration.

Regards,

Jane Carr
Business Development Project Support Supervisor
Office Phone (608) 361-6806
Cell Phone (608) 718-4246
Jane.carr@mulehide.com
www.mulehide.com



Product Data Sheet

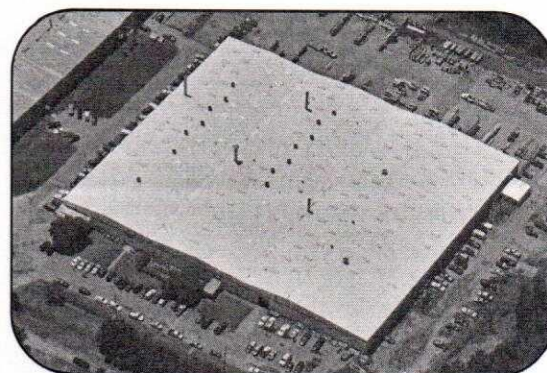
TPO-c MEMBRANE

(Standard, FR and CLEAN Film)

PRODUCT DESCRIPTION

Revision Date: May 2022

Mule-Hide TPO-c Membrane is a polyester reinforced, .045" or .060 thick, polyolefin based, thermoplastic, heat-weldable membrane. High breaking strength, tearing strength, and puncture resistance is achieved by encapsulating a strong polyester fabric between the top and bottom plies. Mule-Hide TPO-c FR membrane is formulated with additional flame retardant (compared to Standard) for higher slope fire code approvals. The TPO-c membrane is also available in a 0.80" thickness (see Product Data Sheet for TPO-c EXTRA). The membrane is environmentally friendly and safe to install. All Mule-Hide TPO membranes include MHP Weathering Package, an industry leading, state of the art weather package that enables Mule-Hide TPO membranes to withstand the extreme weatherability testing which simulates exposure to severe climates.



BASIC USES

The TPO-c membrane is used in mechanically attached and fully adhered roofing systems in new construction, reroofing and recover (retrofit) applications. It may also be used as flexible membrane flashings for walls, curbs, etc, when installing TPO-c membrane roofing systems. The system must be installed over acceptable roof insulation or other suitable substrate. See the Mule-Hide TPO Specifications Manual for complete specifications and details.

Optional CLEAN Film

The TPO-c membrane is available with an optional CLEAN Film (Standard colors only), a temporary protective film factory applied to the top surface of the membrane. By protecting the membrane surface from scuffs and dirt accumulation during installation, this protective film can save labor and time by helping to eliminate the need for roof cleaning upon project completion. CLEAN Film can be left in place for up to 90 days. Durable and easy to remove, CLEAN Film helps to improve the aesthetics and long-term reflectivity and is ideal for use on re-roofing, re-cover and new construction projects. CLEAN Film is available on TPO-c 60 mil membranes supplied in 6' x100' and 10' x 100' rolls.

BENEFITS & SUPPLEMENTAL STATEMENTS

- Wide window of weldability
- Outstanding puncture resistance
- Chlorine-free with no halogenated flame retardants
- UL 2218 Class 4 hail rating available on select systems
- Excellent low temperature impact resistance
- Excellent chemical resistance to acids, bases, restaurant oils and greases
- Plasticizer-free, does not contain liquid or polymeric plasticizer
- Exceptional resistance to solar UV, ozone and oxidation
- Low water vapor permeance and water absorption
- Hot melt extrusion processed for complete scrim encapsulation
- Non woven reinforcement fabric for smooth surface and greater thickness-over-scrim
- Polyester reinforcing fabric which is resistant to degradation by bacteria, mildew and fungi
- TPO-c is 100% recyclable
- Meets and exceeds requirements of ASTM D6878 Standard Specification for Thermal Plastic Polyolefin Based Sheet Roofing
- CLEAN Film guards the TPO membrane surface from scuffs and dirt accumulation during installation, helping to improve the roof systems appearance and maintain long-term reflectivity.
- CLEAN Film can be left in place for up to 90 days due to its excellent heat and UV resistance.
- Mule-Hide's tan and white TPO membranes are CRRS listed and California Title 24 compliant and can contribute toward LEED® (Leadership in Energy and Environmental Design) credits.

Product Data Sheet

TPO-c Membrane (Standard, FR & CLEAN Film)

SPECIFICATIONS

Standard Colors: White, Gray and Tan

Colorway Colors: Medium Bronze, Patina Green, Rock Brown, Slate Gray & Terra Cotta.

Material: .045-inch (Standard Colors only) and .060-inch (nominal) thick polyester reinforced thermoplastic

Sizes: Standard Colors as 4', 6', 8', 10' and 12' sheet widths by 100'

Colorway Colors as 5' and 10' sheet widths by 100'

Weights: 45 Mil - 0.23 lb/ft² (1.1 kg/m²) typical, 60 Mil - 0.29 lb/ft² (1.4 kg/m²) typical

Physical Properties*	Test Method	Requirement	45-mil	60-mil
Thickness Tolerance on nominal, %	ASTM D-751	+15, -10	±10	±10
Thickness over scrim, in. (mm) (avg. of 3 areas)	ASTM D-6878 Optical Method	0.015 min. (0.380)	0.018 typical (0.457)	0.024 typical (0.610)
Breaking Strength, lbf (kN)	ASTM D-751 (Grab Method)	220 (976 N) minimum	225 (1.0) min. 320 (1.4) typical	250 (1.1) min. 360 (1.6) typical
Elongation at break of fabric, %	ASTM D-751 (Grab Method)	15 minimum	15 minimum 25 typical	15 minimum 25 typical
Tear Strength, lbf (N) 8 by 8 in. specimen	ASTM D-751 (B Tongue Tear)	55 (245) minimum	55 (245) min. 130 (578) typical	55 (245) min. 130 (578) typical
Brittleness point, °F (°C)	ASTM D-2137	-40 (-40) maximum	-40 °F (-40 °C) max. -50 °F (-46 °C) typical	-40 °F (-40 °C) max. -50 °F (-46 °C) typical
Linear Dimensional Change (shrinkage) % change	ASTM D-1204 6 hours @ 158° F (70° C)	±1 maximum	+/-1 max - 0.2 typical	+/-1 max - 0.2 typical
Ozone resistance, 100 pphm, 168 hrs.	ASTM D-1149	PASS	PASS	PASS
Factory seam strength, lbf/in (kN/m)	ASTM D-751	66 (290) min	66 (290) minimum	66 (290) minimum
Field seam strength, lbf/in. (kN/m) Seams tested in peel	ASTM D-1876	No requirement	25 (4.4) min. 50 (8.8) typical	25 (4.4) min. 60 (10.5) typical
Water vapor permeance, Pems	ASTM E-96 proc. B	No requirement	0.10 max. 0.05 typical	0.10 max. 0.05 typical
Water Absorption Resistance, mass % Top surface only	ASTM D-471 @ 158°F, 166 hours	No requirement	3.0 max. 0.90 typical	3.0 max. 0.90 typical
Puncture resistance, lbf (N)	FTM 101C Method 2031	No requirement	250 (1.1) min. 325 (1.4) typical	300 (1.3) min. 350 (1.6) typical
Properties after heat aging - ASTM D573, 32 weeks at 240°F or 8 weeks at 275 °F No cracking when bent around 3" dia. mandrel Weight change, %	PASS No Cracking ±1.5 max	PASS No Cracking ±1.0 max	PASS No Cracking ±1.0 max	PASS No Cracking ±1.0 max

*Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

INSTALLATION INSTRUCTIONS

- 1) Approved insulation shall be attached to the roof deck with an approved insulation adhesive or approved fasteners and plates. Install insulation with its largest dimension perpendicular to the direction of the membrane seams where possible.
- 2) Mechanically Attached Roofing System
 - a) Perimeter sheets to be installed in an approved pattern along all exterior roof edges.
 - b) Mechanical fasteners and plates are installed in the seams of both the perimeter sheets and field sheets and into the roof deck. Use approved fasteners and maintain proper penetration for specific roof decks.
- 3) Fully Adhered Roofing System
 - a) Perimeter sheets are not required.
 - b) The membrane is required to be mechanically attached at the base of all vertical surfaces, roof edges, and angle changes.
 - c) The field of the roof is fully adhered to the substrate with Mule-Hide TPO Bonding Adhesive.
- 4) Remove CLEAN Film from areas that are to be heat-welded together. In areas not requiring heat-welding, CLEAN Film can be left in place for up to 90 days. Upon completion of the TPO roofing system, remove the CLEAN film and discard.
- 4) All seams are hot air welded and checked by probing.
- 5) All details will be done in accordance with Mule-Hide details.
- 6) On projects where a Mule-Hide System Warranty is requested, an authorized Mule-Hide representative shall inspect all completed work. This is only a brief summary and not the complete specification. The Mule-Hide Specifications, Details, Technical Bulletins, and associated documents should be thoroughly reviewed prior to starting any project. Contact the Mule-Hide Technical Department for additional information.

TPO-c Membrane (Standard, FR & CLEAN Film)

PRECAUTIONS

- Maximum sustained temperature not to exceed 160°F (71°C) for TPO membrane.
- Use proper stacking procedures to ensure roll stability. Avoid creasing the membrane.
- Surfaces may be slippery when wet, or due to frost and ice build-up. Exercise caution to prevent falls.
- Mule-Hide TPO membranes are highly reflective to sunlight. Workers should dress appropriately, wear sunscreen, and wear sunglasses that filter out UV light.
- Exercise care when working near roof edge as edges may not be visible when surrounding area is covered with snow.
- Store Mule-Hide membrane in original wrappings in a cool, shaded area. Cover with light-colored, breathable, waterproof tarpaulins. Mule-Hide membrane that has been exposed to the weather must be prepared with Weathered Membrane Cleaner prior to hot air welding.
- Use proper stacking procedures to ensure sufficient stability of the rolls.
- Take care not to stand or place heavy objects on the edge of folded-over membrane, as this could cause a hard crease in the membrane.
- Do not use razor blades or other sharp tools to cut the CLEAN Film while it is still adhered to the TPO membrane as damage to the underlying membrane may occur. Pull the protective film away from the membrane prior to cutting.
- Remove CLEAN Film by pulling towards the center of the roof. Do not remove the film by pulling towards the roof edge.
- A static electricity charge may develop when removing the CLEAN Film from the surface of the membrane sheet. To avoid the possibility of ignition, lids must be closed on any flammable products and fire extinguishers should be readily available.
- Color membranes will 'fade' over time mainly due to the ultraviolet portion of sunlight. Since most roof surfaces are exposed to variable sunlight, some areas will be more susceptible to color changes caused by UV fading. Warranties for color membranes do not cover fading of colors.

EXTREME TESTING FOR SEVERE CLIMATES

ASTM Standard D6878 is the material specification for Thermoplastic Polyolefin-Based Sheet Roofing. It covers material property requirements for TPO roof sheeting and includes initial and aged properties after heat and xenon-arc exposure. As stated in the standard, "the tests and property limits used to characterize the sheet are values intended to ensure minimum quality for the intended purpose." Mule-Hide's goal is to provide TPO that delivers maximum performance for the intended purpose of roofing membranes. Maximum performance requires the membrane to far exceed the requirements of ASTM Standard D6878.

Heat Aging accelerates the oxidation rate the roughly doubles for each 18°F (10°C) increase in roof membrane temperature. Oxidation (reaction with oxygen) is one of the primary chemical degradation mechanisms of roofing materials.

HEAT AGING		
Test Method	ASTM Requirement	Typical Results
ASTM Test - 240° F (116° C), No Visible Cracks	32 Weeks**	>128 Weeks
**Heat exposure comparable to 3,120 weeks (60 years) at 185°F for 8 hours per day.		
Test specimen is 2" by 6" piece of 45-mil membrane un-backed, placed in circulating hot-air oven		
Criterion-no visible cracks after bending aged test sample around 3" diameter mandrel.		
Heat Aging accelerates the oxidation rate that roughly doubles for each 10° C (18° F) increase in roof membrane temperature.		
Oxidation (reaction with oxygen) is one of the primary chemical degradation mechanisms of roofing materials.		

Q-Trac testing combines accelerated weathering with real-world conditions using an array of ten mirrors to reflect and concentrate full spectrum sunlight onto membrane test specimens. The Q-Trac device automatically tracks the sun's path from morning to night. Also, it adjusts to compensate for seasonal changes in the sun's altitude. Eight years in Q-Trac testing is equal to 40 years of real-world exposure. Mule-Hide requires its TPO membranes to pass the equivalent of 40 year exposure in the Q-Trac.

Q-Trac Testing		
Test Method	ASTM Requirement	Mule-Hide Requirement
ASTM Test N/A	N/A	Equivalent of 40 years exposure
Environmental Cycling subjects the membrane to repeated cycles of heat aging, hot-water immersion and xenon-arc exposure.		
Test specimen is 2.75" by 5.5" piece of membrane with edges sealed.		
- 10 days heat aging at 240° F (116° C) followed by - 5 days water immersion at 158° F (70° C) followed by - 5,040 kJ/m² (2000 hours at 0.70 W/m² irradiance) xenon-arc exposure		
Criterion – after 3 completed cycles, test specimens shall remain flexible and not have any cracking under 10x magnifications while wrapped around a 3" diameter mandrel.		

TPO-c Membrane

(Standard, FR & CLEAN Film)

SUPPLEMENTAL APPROVALS, STATEMENTS AND CHARACTERISTICS

- 1) TPO-c meets and exceeds the requirements of **ASTM D6878** Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing.
- 2) Radiative Properties for Cool Roof Rating Council (CRRC) and LEED.
- 3) CRRC Product ID: TPO-c White 0670-0009
- 4) Mule-Hide TPO-c membranes conform to requirements of the U.S.E.P.A. Toxic Leachate Test (40 CFR part 136) performed by an independent analytical laboratory.
- 5) TPO-c was tested for dynamic puncture resistance per ASTM D5635-04 using the most recently modified impact head. 45-mil was watertight after an impact energy of 12.5 J (9.2 ft-lbf) and 60-mil was watertight after an impact energy of 22.5 J (16.6 ft-lbf)
- 6) NSF-P151 Certification for rainwater catchment systems components. (Plant 91/White Only)

RADIATIVE PROPERTIES for CRRC and LEED				
DESCRIPTION	TEST METHOD	WHITE TPO-c	TAN TPO-c	GRAY TPO-c
CRRC initial solar reflectance	ASTM C1549	0.79	0.71	0.46
CRRC solar reflectance after 3 years	ASTM C1549 (un-cleaned)	0.70	0.64	0.43
CRRC initial thermal emittance	ASTM C1371	0.90	0.86	0.89
CRRC thermal emittance after 3 years	ASTM C1371 (un-cleaned)	0.86	0.87	0.88
CRRC SRI (Solar Reflectance Index)	ASTM E1980	99	86	53
CRRC SRI (Solar Reflectance Index after 3 yrs)	ASTM E1980	85	77	48
CRRC Product ID Number		0670-0009	0670-0016	0670-0017

RADIATIVE PROPERTIES (Initial) FOR COLORWAY COLORS			
Color	Reflectance	Emittance	SRI
Medium Bronze	0.28	0.86	29
Rock Brown	0.25	0.87	26
Slate Gray	0.38	0.87	42
Terra Cotta	0.25	0.86	25
Patina Green	0.25	0.88	25

Solar Reflectance Index (SRI) is calculated per ASTM E 1980. The SRI is a measure of the roof's ability to reject solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90) is 100. Materials with the highest SRI values are the coolest choices for roofing. Due to the way SRI is defined, particularly hot materials can even take slightly negative values, and particularly cool materials can even exceed 100.

LEED Information	
Pre-consumer Recycled Content	10%
Post-consumer Recycled Content	0%
Manufacturing Location	Senatobia, MS Tooele, UT Carlisle, PA
Solar Reflectance Index (SRI)	99 (white) 86 (tan)

PROTECTION & SAFETY

Mule-Hide maintains Safety Data Sheets on all of its non-exempt products. Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers. Mule-Hide's Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Mule-Hide products in your facilities.

ADDITIONAL INFORMATION

The information given on this PDS is subject to change without notice. Always check the Mule-Hide website at www.mulehide.com for the latest information, changes and updates or contact Mule-Hide Products Company at 800-786-1492.

Product Data Sheet

TPO-c Membrane (Standard, FR & CLEAN Film)

DISCLAIMER

The statements provided concerning the material shown are intended as a guide for material usage and are believed to be true and accurate at the time of printing. No statement made by anyone may supersede this information, except when done in writing by Mule-Hide Products Co., Inc. Since the manner of use is beyond our control, Mule-Hide does not authorize anyone to make any warranty of merchantability or fitness for any particular purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material. This product may be eligible for a Mule-Hide warranty, please check the Mule-Hide website at www.mulehide.com or contact Mule-Hide directly at 800-786-1492 for details. Buyer and user accept the product under these conditions and assume the risk of any failure, any injury person or property (including that of the user), loss or liability resulting from the handling, storage or use of the product whether or not it is handled, stored or used in accordance with the directions or specifications. Mule-Hide must be notified in writing of any claims and be given the opportunity to inspect the alleged failure before repairs are made.

TPO

ROOFING SYSTEMS



"The name trusted in roofing since 1906"

PRODUCT INFORMATION

THE AFFORDABLE WHITE ROOF

INSTALLED COST VALUE

Other white membranes command a premium price, but thanks to manufacturing technology originally developed in the automotive industry (impact and UV resistant bumpers), a Mule-Hide TPO Roof is "The Affordable White Roof".

REINFORCED TPO

- White, gray, tan (other colors by special order)
- Also available in Fleece Back versions
- Thermoplastic polyolefin based for superior strength and weatherability
- Lightweight yet highly resistant to tears, impact, punctures, & wind uplift
- Ideal for both new construction and reroofing
- Reinforced membrane easily handles building thermal expansion & contraction
- Meets or exceeds ASTM performance standards.

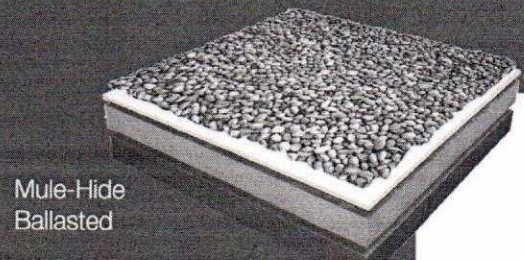
ENVIRONMENTALLY FRIENDLY

- No plasticizer migration
- No chlorine
- Recyclable

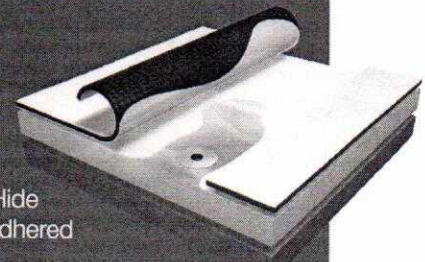
TPO WITH CLEAN FILM

Remove dirt and scuffs left behind during installation by installing a membrane with protective film.

- Guard against damage and dirt pick-up due foot traffic
- Reduce roof glare during installation
- Ensure no loss of initial reflectivity immediately after instal due to dirty roof



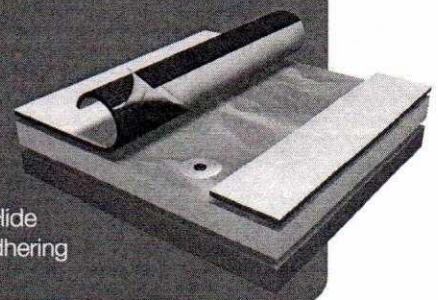
Mule-Hide
Ballasted



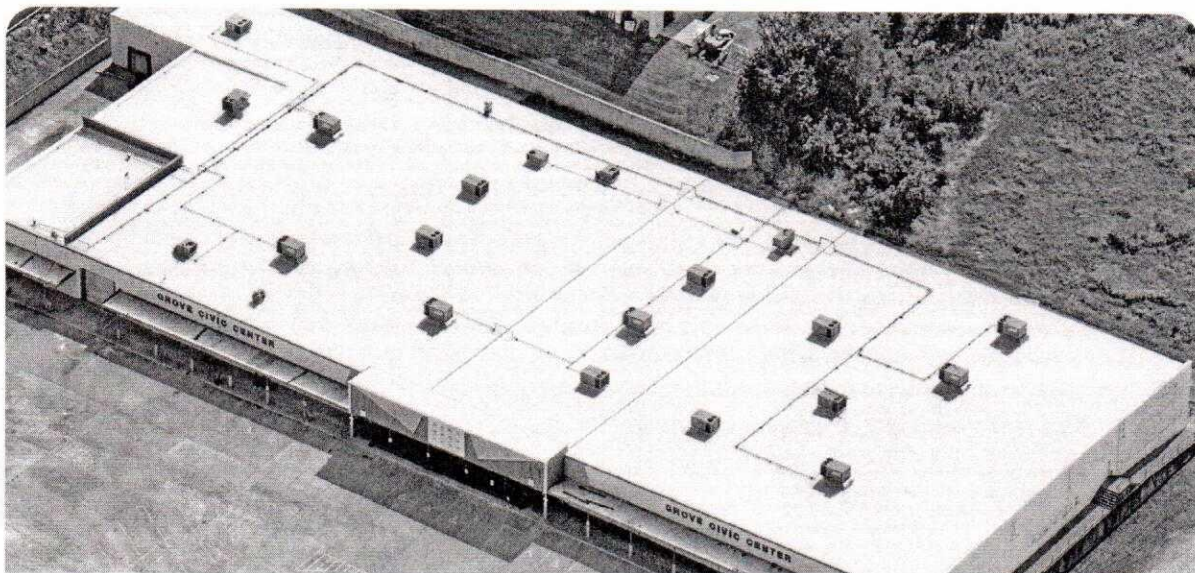
Mule-Hide
Fully Adhered



Mule-Hide
Mechanically Attached



Mule-Hide
Self-Adhering



OUR PROMISE

THROUGH ONGOING INTERCHANGE OF EXPERIENCES WITH CONTRACTORS, MULE-HIDE KEEPS ON TOP OF THE LATEST ROOFING REQUIREMENTS AND SOLUTIONS

Trusted in roofing since 1906, Mule-Hide is the right choice for all kinds of installations. Our time-tested and proven systems are affordable and easy to install, and they meet even the strictest demands of today's commercial, industrial, and institutional buildings.

We can help you with everything from membrane selection to determining the best way to ensure a watertight roof. And because providing total roofing systems is our business, you can count on Mule-Hide to ensure the compatibility and performance of any and every component you choose.

WARRANTY PROGRAM

Mule-Hide offers a variety of warranties for Commercial and Residential projects including material and system warranties. System warranties are available for commercial projects when installed in strict compliance with Mule-Hide's specifications by a Mule-Hide Warranty Eligible Contractor. Residential projects may qualify for material warranties. Complete warranty information and requirements for the various warranties available may be found on the Mule-Hide web site at www.mulehide.com or by contacting Mule-Hide at 800-786-1492.

SYSTEM BENEFITS

EASY TO INSTALL

Mule-Hide TPO Roofing Systems install quickly and economically. UL & FM listed assemblies are available upon request. All the accessories you need to complete roof details around edges and penetrations are also stocked locally.

ENERGY EFFICIENT ROOFS

White surfaces have been shown to reflect up to 78% of the sun's rays to reduce air-conditioning costs. The superb reflectivity of white TPO even reduces the heat build-up under the membrane.

THE BEST LIFECYCLE

TPO provides excellent resistance to fire, UV, airborne bacteria, and industrial pollutants such as air-conditioning coolants. Contains no chlorine, a plus for the environment.

LOWER LABOR COSTS

Available in widths of 8', 10', and 12' for less seams and less labor compared to standard PVC sheets.

THICKER TOP PLY

More product on top of the scrim where you need it most, one of the thickest top plies in the industry.

STRENGTH

Keeps moisture out, yet lightweight, making it ideal for new construction and retrofit installations without adding excessive weight to the roof deck. TPO can handle the desert sun, sand, arctic freezes, and torrential downpours. Stands up to rooftop traffic, tools, and equipment.

FLEXIBILITY

The membrane remains flexible in hot and cold temperatures so it will not split or crack.

REPAIRABLE

TPO membrane remains repairable year after year, allowing for ease of future cutouts, alterations and tie-ins. Can be cleaned to retain like - new appearance.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 53 23—Ethylene-Propylene-Diene-Monomer Roofing
Section: 07 54 19—Polyvinyl-Chloride Roofing
Section: 07 54 23—Thermoplastic-Polyolefin Roofing

REPORT HOLDER:

CARLISLE SYNTEC SYSTEMS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC

EVALUATION SUBJECT:

CARLISLE EPDM, PVC AND TPO SINGLE-PLY ROOFING MEMBRANES

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that the Carlisle EPDM, PVC and TPO single-ply roofing membranes, described in ICC-ES evaluation report ESR-1463, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Carlisle EPDM, PVC and TPO single-ply roofing membranes, described in Sections 2.0 through 7.0 of the evaluation report ESR-1463, comply with CBC Chapter 15, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 15, as applicable.

The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of Sections 701A.3 and 705A of the CBC.

2.1.1 OSHPD: The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Carlisle EPDM, PVC and TPO single-ply roofing membranes, described in Sections 2.0 through 7.0 of the evaluation report ESR-1463, comply with CRC Chapter 95, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 9, as applicable.

The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of Sections R337.3.1 and R337.5 of the CRC.

This supplement expires concurrently with the evaluation report, reissued October 2022.

Effective Date:

Warranty Number:

Mule-Hide Products Co., Inc. Premium NDL System Warranty for Commercial Buildings

Building Owner:

Building Address:

In consideration of the warranty fee paid by the above-named Building Owner ("Owner") and the representation to Mule-Hide by the independent contractor hired by the Owner and registered with Mule-Hide to apply for warranties ("Eligible Contractor") that the Mule-Hide Standard System ("System") has been constructed in accordance with Mule-Hide specifications, Mule-Hide Products Co., Inc. ("Mule-Hide") warrants to Owner, subject to the following Terms, Conditions and Limitations, that Mule-Hide will be responsible for the repair of leaks in the System installed on the Building for a period of _____ years from the above Effective Date ("Term of Warranty"); provided, however, that the System shall have been installed by Eligible Contractor using Mule-Hide products and/or other material approved in writing by Mule-Hide. "System" for purposes of this Warranty shall mean only the membrane, insulation, metal flashings and other components supplied by Mule-Hide, and shall exclude the roof deck and support system. The watertight integrity of walls, parapet walls and other adjacent structures is not covered. There is no dollar limitation ("NDL") on covered repairs. Any dispute, controversy or claim between Owner and Mule-Hide arising out of or related to this Warranty or the Building shall be settled by final and binding arbitration in accordance with the rules of the American Arbitration Association for the Construction Industry. By accepting this Warranty, Owner represents that the Building is a commercial structure and is not used for owner's personal or household purposes. In consideration of the protection afforded by this Warranty, Owner accepts the following Terms, Conditions and Limitations:

1. Within ten (10) days after Owner or any of its agents discovers (or a reasonable person in Owner's or agent's position would have discovered) any leak, Owner must give written notice (the "Notice") to Mule-Hide of the existence of each leak in the System.
2. Mule-Hide shall have the right to inspect the System after receiving the Notice to determine the cause(s) of the leak before incurring any obligation hereunder. A reinspection fee (in accordance with Mule-Hide's standard charges) shall be paid by Owner to Mule-Hide in the event the cause of the leak is not covered by the Warranty. If, upon Mule-Hide's inspection, Mule-Hide determines that the leaks in the system are caused by defects in Mule-Hide's materials or workmanship of the Contractor, Owner's remedies and Mule-Hide's liability shall be limited to Mule-Hide's repair of the System using methods determined to be suitable at Mule-Hide's discretion. In no event shall Mule-Hide be obligated to perform additional services (e.g. roof drains, equipment relocation, old roof removal, etc.) or provide materials beyond the scope of the Owner's original contract with Contractor.
3. This Warranty is not assignable by Owner; provided, however, Mule-Hide may authorize a new warranty if the following conditions are met:
 - (a) A written request for a new warranty is submitted to Mule-Hide by Owner and the Owner is in good standing under this Warranty;
 - (b) The roof is inspected by Mule-Hide within a thirty (30) day period prior to the proposed effective date of the new warranty and the condition of the roof is approved by Mule-Hide; and
 - (c) An administrative and reinspection fee in an amount determined by Mule-Hide is paid to Mule-Hide.A new warranty will then be issued to the new Owner for the remaining Term of Warranty containing terms and conditions required by Mule-Hide.
4. If the System is damaged by any of the following causes, this Warranty shall not apply to such damages:
 - (a) Any natural cause, including but not limited to lightning, peak gust wind speeds in excess of 55 mph, hurricane, tornado, hail, the infestation or presence of plant, mold, fungi, bacteria, insects or an animal, or earthquake, or any debris resulting from any of these causes.
 - (b) Act of negligence, accident, misuse or abuse, including but not limited to vandalism, fire, falling object, civil disobedience, or act of war.
 - (c) The use in the System of metal work, coping, counter-flashing, rain-carrying components or other material not furnished by Mule-Hide.
 - (d) Environmental fallout, chemical attack or the presence within or outside the Building of any commercial or industrial solvent, acid, caustic fluid, petroleum product, wax, grease, absorbent, clay or plasticizer.
 - (e) Negligence of a contractor who is not the Eligible Contractor, or failure of the material or the workmanship provided by such a contractor.
 - (f) Interior condensation and any resulting damage or condition, including but not limited to, mold, fungi or bacteria.
 - (g) The infiltration of moisture in, through or around the building through any mechanism other than through the System, including but not limited to, any structural defect, wall, or other Building structure, or anything that penetrates the System, including but not limited to any vent, coping or rooftop equipment and any resulting damage or condition, including but not limited to, mold, fungi or bacteria.
 - (h) Any failure, settlement or movement of the roof structure, roof deck or substrate.
 - (i) Defects in the building or roof design.
5. Occurrence of any of the following shall cancel Mule-Hide's obligations under this Warranty:
 - (a) Alteration or repair made on or through the roof without prior written authorization from Mule-Hide.
 - (b) Placement upon or attachment to the roof of any object (including but not limited to any structure, fixture or utility) without prior written authorization from Mule-Hide.
 - (c) Owner's or the Building occupant's failure to use reasonable care in maintaining the roof including, but not limited to, items listed on the reverse side of this document titled "Mule-Hide Owner's Care and Maintenance Information".
 - (d) Internal positive pressure condition which causes or contributes to a partial or total failure of the roof.
 - (e) Owner's sale of the Building or purported assignment of this Warranty.
 - (f) Owner's failure to comply with every Term, Condition and Limitation in this Warranty.
6. Mule-Hide, its agents, employees and contractors shall have unrestricted access to the roof during regular business hours. By accepting this Warranty, Owner agrees to arrange for removal of water, snow, ice, equipment, any paving or overburden at Owner's expense to allow for investigation or repairs to be made.
7. All bills for installation, supplies and services shall have been paid in full to Eligible Contractor and all material suppliers before Mule-Hide incurs any obligation or liability under this Warranty. It is the Owner's sole responsibility to confirm that payment has been made to Eligible Contractor and all material suppliers.
8. The failure of Mule-Hide at any time to assert or enforce any Term, Condition and Limitation shall not be construed to be a waiver thereof, or of any other Term, Condition or Limitation.
9. Any and all other express warranties are superseded hereby and this Warranty is in lieu thereof.
10. Owner acknowledges that the Eligible Contractor is not an agent or other legal representative of Mule-Hide. Mule-Hide is not liable for any promise, representation or other responsibility of Eligible Contractor or any other party. This warranty is not binding upon Mule-Hide unless executed by an executive officer of Mule-Hide or a duly authorized employee of Mule-Hide's Warranty Department. No representative or employee of Mule-Hide, or any other party, may alter this Warranty without the prior written consent of an executive officer of Mule-Hide. This Warranty constitutes the entire understanding of the parties with respect to the subject matter contained herein, and revokes and supersedes all prior agreements, whether written or oral, between the parties. This Warranty shall take precedence over any other documents or representations (whether oral or written, and by whomsoever made) which may conflict with this Warranty.
11. The predominant factor in the construction and performance of the System is the design and construction services of the contractor and not the sale of goods. In addition, Owner acknowledges that Owner had a duty hereunder to exercise reasonable care in the selection of a contractor.
12. Mule-Hide is not liable for the cleanliness or discoloration of the System caused by environmental conditions including but not limited to dirt, pollutants or any biological agent.

MULE-HIDE DOES NOT EVALUATE THE ARCHITECTURE OR ENGINEERING USED IN THE DESIGN OF A ROOF OR THE SELECTION OF A ROOF SYSTEM. OWNER'S REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR CLAIMS AND DAMAGES ARISING FROM FAILURE OF THE SYSTEM. MULE-HIDE MAKES NO WARRANTIES, EITHER EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE FACE HEREOF. MULE-HIDE SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS PROVIDED HEREIN, MULE-HIDE SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCE OR THEORY OF ACTION, INCLUDING BUT NOT LIMITED TO CONTRACT, TORT, PRODUCTS LIABILITY OR OTHERWISE, (i) FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO PERSONAL INJURY, LOSS OF PROFIT OR DAMAGE TO THE BUILDING OR ANY MERCHANDISE OR OTHER CONTENTS THEREIN, FOR WHATEVER CAUSE INCLUDING BUT NOT LIMITED TO MOLD, FUNGI, AND BACTERIA AND (ii) FOR LOSS OR DAMAGE CAUSED OR CONTRIBUTED TO BY MULE-HIDE'S APPROVAL OF THE CONTRACTOR OR INSPECTION OF, OR FAILURE TO INSPECT, THE BUILDING ROOF. NOR SHALL MULE-HIDE BE LIABLE FOR ANY DAMAGES WHICH ARE BASED ON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OTHER THAN THE LIABILITY SET FORTH ABOVE. INCIDENTAL AND CONSEQUENTIAL DAMAGES SHALL NOT BE RECOVERABLE EVEN IF THE REMEDY PROVIDED FOR HEREIN FAILS OF ITS PURPOSE. IN THE EVENT OF ANY ARBITRATION OR LITIGATION REGARDING THIS WARRANTY OR ITS SUBJECT MATTER, IF MULE-HIDE IS THE PREVAILING PARTY, OWNER SHALL REIMBURSE MULE-HIDE FOR ALL OF MULE-HIDE'S DISPUTE RESOLUTION COSTS, INCLUDING ATTORNEY'S FEES. FOR PURPOSES OF THIS WARRANTY, MULE-HIDE WILL BE DEEMED THE PREVAILING PARTY IF THE OWNER RECOVERS NOTHING OR A SUM LESS THAN WAS OFFERED IN SETTLEMENT.

SELF-ADHERING TPO

FASTER INSTALLATION

SA-TPO contains all the benefits of fully adhered, reinforced TPO plus labor savings with a solvent and odor-free factory-applied adhesive. Easy, consistent installation—up to 3 to 5 times faster than traditional TPO systems—resulting in a finished system with no membrane fluttering, decreased stress on fasteners, and less wrinkles.



When projects call for an alternative to traditional TPO membrane, SA-TPO is the solution contractors choose when:

- Stringent VOC regulations demand a VOC and odor-free roofing system.
- High-rise building installations require a lightweight membrane that is able to be transported to the roof using an elevator.
- Construction schedules necessitate a water-tight building as quickly as possible.

MATERIAL	MATERIAL THICKNESS	STANDARD WIDTH	STANDARD LENGTH	STANDARD COLORS	AVAILABLE WARRANTY
TPO-c Standard Membrane	45 mil	4' - 12'	100'	White, Gray, Tan	10, 15 yr
	60 mil	4' - 12'	100'	White, Gray, Tan	10, 15, 20 yr
TPO-c Extra Membrane	80 mil	4' - 12'	100'	White, Gray, Tan	10, 15, 20 yr
SA-TPO	60 mil	10'	50' - 100'	White	10, 15, 20 yr
TPO with CLEAN Film	60 mil	6', 10'	100'	White	10, 15, 20 yr
TPO-c Fleece Back Membrane	45 mil	6' - 12'	50' - 100'	White	10, 15 yr
	60 mil	6' - 12'	50' - 100'	White	10, 15, 20 yr
TPO-c Fleece Back Plus Membrane	45 mil	6' - 12'	50' - 100'	White	10, 15 yr
	60 mil	6' - 12'	50' - 100'	White	10, 15, 20 yr

This chart is used for a general guideline. Additional sizes and colors may be available. Please contact Mule-Hide Customer Service at 800-786-1492 or go to our website at www.mulehide.com for specific product information.

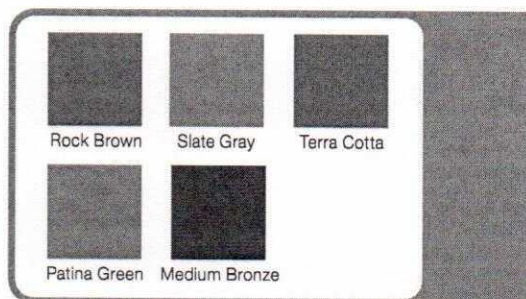
TPO COLORWAY

AN INDUSTRY EXCLUSIVE!

TPO Colorway membranes now have matching pre-fabricated accessories including split pipe boots, coated metal, conical boots, inside and outside corners, t-joint patches and more. Match your roof surface with complimentary edge metal colors for an architectural look and feel.

TPO Colorway is available in the following accessories:

- 60 Mil Non-Reinforced Flashing
- Rib Contours
- Coated Metal
- Universal Conical Boot
- Split Pipe Seals
- Outside Corners
- Inside Corners
- T-Joint Patches
- Square Tube Wraps
- Drop Scuppers
- Through Wall Scuppers
- Breather Vents
- Vent Collar Combo



Special Color membranes will fade over time mainly due to the ultraviolet portion of sunlight. Most roof surfaces are exposed to variable sunlight, some areas will be more susceptible to color changes caused by UV fading. Warranties for Special Color membranes do not cover fading of colors.



FAQ'S

DOES THE CONTRACTOR NEED TO PROVIDE MATERIAL INVOICES ALONG WITH WARRANTY APPLICATIONS?

Specific warranties may require submission of material invoices.

DOES MULE-HIDE REQUIRE A TOTAL TEAR-OFF FOR LABOR & MATERIAL ROOFING SYSTEM WARRANTIES?

No, this is not required, but all areas of wet insulation and membrane must be replaced with new, dry, similar material, specific warranties may require an independent moisture scan of the roof.

DOES MULE-HIDE OFFER ANY PRE-JOB "WALK THE ROOF" OR JOB STARTS?

Yes, Mule-Hide Territory Managers offer these services.

WHAT ARE THE WARRANTY FEES FOR HEAT-WELD ROOFING SYSTEMS?

Fees vary depending on the type of warranty and duration desired. Current fees are listed on Mule-Hide Warranty Application Forms and on the website.

DO I NEED WALK PADS FOR A LARGE COMMERCIAL ROOFING PROJECT?

Walk pads are always recommended. Mule-Hide offers walk pads for each system/membrane type we sell.

WHAT IF I NEED A SUBMITTAL PACKAGE?

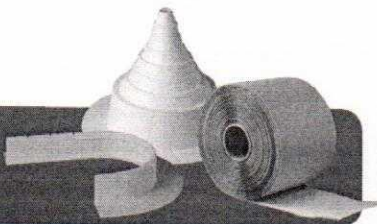
Contact your ABC Sales Associate, Mule-Hide Territory Manager or go to www.mulehide.com and make a request online.

WHAT IF I NEED TO PROVE MULE-HIDE TPO OR PVC MEETS A WRITTEN SPECIFICATION OR COMPLIES WITH A UL, FM OR OTHER CODE REQUIREMENT?

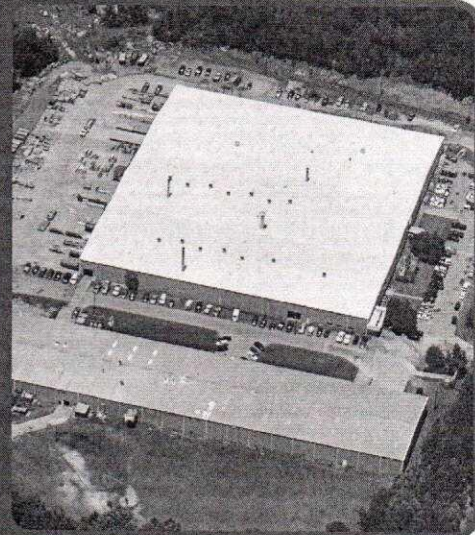
Just provide Mule-Hide with the following information:

- A copy of the specification
- Name & address to whom the letter should be addressed
- Your email, phone & fax number
- What is the UL/FM requirement?
- Deck type?
- Slope?
- Insulation type and thickness?
- Membrane and system?
- Building location and height?
- Overall dimensions?
- Parapet height?

TPO ACCESSORIES



- TPO Bonding Adhesive (solvent based-amber – Low VOC version available)
- Aqua Base 120
- TPO Primer
- TPO Weathered Membrane Cleaner (clear & Low VOC version available)
- TPO Cut Edge Sealant (clear & Low VOC version available)
- TPO Detail Membrane (non-reinforced, white, gray, tan)
- TPO Flashing Strips (reinforced, white, gray, tan)
- TPO PS Cover Strip With Tape (white, gray, tan)
- TPO PS 6" and 10" RUSS With Tape
- TPO Premolded Pipe Seal (white, gray, tan)
- TPO Universal Corners (fit inside or outside, white, gray, tan)
- TPO T-Joint Covers (white, gray, tan)
- TPO Molded Sealant Pockets (white, gray, tan)
- Thermoplastic (one-part) Pourable Sealer (white)
- TPO Coated Metal
- TPO Walkway Rolls (white, gray)
- Fastener Accessories – Drill Point (for insulation only) HDP & EHD Fasteners, Insulated Plates and Seam Plates
- All Purpose Bar – use as anchor, batten and termination bar
- Polyisocyanurate Insulation
- DensDeck®
- SECUROCK®



"The name trusted in roofing since 1906"

Customer Line: 800-786-1492 • www.mulehide.com

Check our website monthly for the latest updates & technical bulletins.

National Support Center • 1195 Prince Hall Drive • Beloit, WI 53511 • tel. 608.365.3111 • fax. 608.365.7852

The information herein should not be considered all-inclusive and should always be accompanied by a review of the Mule-Hide specifications and guidelines and good application practices.

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60 mil TPO Membrane - (White)						
Manufacturer:	MHP	Carlisle Syntec	Varsco	GAF	Johns Manville	Firestone
Membrane Trade Name:	TPO-c	Sure-Weld	VersaWeld	EverGuard TPO	JM TPO	UltraPly TPO Membrane
Thickness:	.060 inch	.060 inch	.060 inch	.060 inch	.060 inch	.060 inch
Thickness Tolerance on nominal, %	±10%	±10%	±10%	NOT PUBLISHED	NOT PUBLISHED	NOT PUBLISHED
(Test Method)	ASTM D-751	ASTM D-751	ASTM D-751			
Thickness over scrim, in. (mm)	0.024 typical (0.610)	0.024 typical (0.610)	0.024 typical (0.610)	0.022 (nominal)	0.027 (0.688)	0.021 (0.53)
(Test Method)	ASTM D-6878 (Optical Method)	ASTM D-6878 (Optical Method)	ASTM D-6878 (Optical Method)	ASTM D-7635	ASTM D-7635	ASTM D-7635
Breaking Strength, lbf (kN)	250 (1.1) min., 360 (1.6) typical	250 (1.1) min., 360 (1.6) typical	250 (1.1) min., 360 (1.6) typical	305 x 290 (454 x 432)	388 (172.6)	390 (173.5)
(Test Method)	ASTM D-751 Grab Method	ASTM D-751 Grab Method	ASTM D-751 Grab Method	ASTM D-751 Grab Method	ASTM D-751	ASTM D-751 Grab Method
Elongation at break of fabric, %	15 minimum, 25 typical	15 minimum, 25 typical	15 minimum, 25 typical	30% (typical)	27% (typical)	25%
(Test Method)	ASTM D-751 Grab Method	ASTM D-751 Grab Method	ASTM D-751 Grab Method	ASTM D-751	ASTM D-751	ASTM D-751 Grab Method
Tear Strength, lbf (N) 8 by 8in. Specimen	55 (245) min., 130 (578) typical	55 (245) min., 130 (578) typical	55 (245) min., 130 (578) typical	75 x 130 (111.8 x 193.7)	92 x 178	120 (534)
(Test Method)	ASTM D-751 (8 Tongue Tear)	ASTM D-751 (8 Tongue Tear)	ASTM D-751 (8 Tongue Tear)	ASTM D-751	ASTM D-751	ASTM D-751
Brittleness Point, °F (°C)	-40°F (-40°C) max.	-40°F (-40°C) max.	-40°F (-40°C) max.	-40°C	PASS	PASS
(Test Method)	ASTM D-2137	ASTM D-2137	ASTM D-2137	ASTM D-2137	ASTM D-2137	ASTM D-2137
Linear Dimensional Change	±1 max., -0.2 typical	±1 max., -0.2 typical	±1 max., -0.2 typical	0.4% (typical)	<0.1	< 1%
(Test Method)	ASTM D-1204	ASTM D-1204	ASTM D-1204	ASTM D-1204	ASTM D-1204	ASTM D-1204
Ozone Resistance, 100pphm, 168 hrs:	PASS	PASS	PASS	PASS	PASS	PASS
(Test Method)	ASTM D-1149	ASTM D-1149	ASTM D-1149	ASTM D-1149	ASTM D-1149	ASTM D-1149
Factory Seam Strength, lbf/in (kN/m):	66 (290) minimum	66 (290) minimum	66 (290) minimum	135 (201.1)	112 (498)	NOT PUBLISHED
(Test Method)	ASTM D-751	ASTM D-751	ASTM D-751	ASTM D-751	ASTM D-751	
Field Seam Strength, lbf/in (kN/m):	25 (4.4) min.	25 (4.4) min.	25 (4.4) min.	NOT PUBLISHED	NOT PUBLISHED	NOT PUBLISHED
(Test Method)	60 (10.5) typical	60 (10.5) typical	60 (10.5) typical			
Water Vapor Permeance, Perms:	0.10 max.	0.05	0.10 max.	0.05	0.08	0 g/m ² per 24 hours
(Test Method)	typical	typical	typical	typical	ASTM E-96 proc. B	ASTM E-96
Water Absorption Resistance, mass %	3.0 max.	0.90	3.0 max.	0.90	ASTM E-96 proc. B	ASTM E-96
(Test Method)	typical	typical	typical	typical	ASTM E-96	ASTM E-96
Puncture Resistance, lbf (N)	300 (1.3) min.	300 (1.3) min.	300 (1.3) min.	380	371	300 (1300)
(Test Method)	FTM 101C Method 2031	FTM 101C Method 2031	FTM 101C Method 2031	FTM 101C Method 2031	FTM 101C Method 2031	FTM 101C Method 2031
Properties After Heat Aging:	PASS	PASS	PASS	PASS	PASS	PASS
32 weeks at 240°F or 8 weeks at 275°F	No Cracking	No Cracking	No Cracking	No Cracking	No Cracking	No Cracking
No Cracking when bent around 3" dia. Mandrel	Weight change, %	Weight change, %	Weight change, %	Weight change, %	Weight change, %	Weight change, %
(Test Method)	ASTM D-573	ASTM D-573	ASTM D-573	ASTM D-573	ASTM D-573	ASTM D-573
Initial Solar Reflectance:	0.79	0.79	0.79	0.76	0.77	0.79
(Test Method)	ASTM C-1549	ASTM C-1549	ASTM C-1549	ASTM C-1549	ASTM C-1549	ASTM C-1549
Solar Reflectance After 3 Years:	0.70	0.70	0.70	0.68	0.70	0.69
(Test Method)	ASTM C-1549 (uncleaned)	ASTM C-1549 (uncleaned)	ASTM C-1549 (uncleaned)	ASTM C-1549	ASTM C-1549	ASTM C-1549
Initial Thermal Emittance:	0.90	0.90	0.90	0.90	0.87	0.85
(Test Method)	ASTM C-1371	ASTM C-1371	ASTM C-1371	ASTM C-1371	ASTM C-1371	ASTM C-1371
Thermal Emittance After 3 Years:	0.86	0.86	0.86	0.83	0.86	0.83
(Test Method)	ASTM C-1371 (uncleaned)	ASTM C-1371 (uncleaned)	ASTM C-1371 (uncleaned)	ASTM C-1371	ASTM C-1371	ASTM C-1371
SRI (Solar Reflectance Index):	99	99	99	94	95	98
(Test Method)	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980
SRI After 3 years:	85	85	85	81	94	83
(Test Method)	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980	ASTM E-1980
Pre-Consumer Recycled Content:	10%	10%	10%	NOT PUBLISHED	NOT PUBLISHED	15%
Post-Consumer Recycled Content:	0%	0%	0%	NOT PUBLISHED	0%	0%
Updated 2/21/21						



- Compliance to International Codes
- Compliance to State/Regional Codes

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 53 23—Ethylene-Propylene-Diene-Monomer Roofing

Section: 07 54 19—Polyvinyl-Chloride Roofing

Section: 07 54 23—Thermoplastic-Polyolefin Roofing

REPORT HOLDER:

CARLISLE SYNTEC SYSTEMS, A DIVISION OF
CARLISLE CONSTRUCTION MATERIALS, LLC

EVALUATION SUBJECT:

CARLISLE EPDM, PVC AND TPO SINGLE-PLY
ROOFING MEMBRANES

ADDITIONAL LISTEES:

MULE-HIDE PRODUCTS COMPANY, INC.

VERSICO, A DIVISION OF CARLISLE CONSTRUCTION
MATERIALS, LLC

WEATHERBOND, A DIVISION OF CARLISLE
CONSTRUCTION MATERIALS, LLC

ROOFING PRODUCTS INTERNATIONAL, INC.

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

For evaluation for compliance with codes adopted by the Los Angeles Department of Building and Safety (LADBS), see [ESR-1463 LABC and LARC Supplement](#).

Properties evaluated:

- Weather resistance
- Roof covering fire classification
- Wind uplift resistance
- Impact resistance

2.0 USES

2.1.1 1

2.1.2 Sure-White FleeceBACK EPDM Membrane: Sure-White FleeceBACK EPDM Membrane is a 45-, 60- or 90-mil [0.045, 0.060 or 0.090 inch (1.14, 1.52 or 2.29 mm)] nonreinforced white EPDM bonded to a polyester fleece. Available product thicknesses are 100, 115 and 145 mils [0.100, 0.115 or 0.145 inch (2.54, 2.92 or 3.68 mm)].

2.1.3 Sure-Seal AFX EPDM Membrane: Sure-Seal AFX EPDM Membrane is a 45-mil [0.045 inch (1.14 mm) or 60-mil [0.060 inch (1.52 mm)] non-reinforced EPDM bonded to a polyester fleece. Available thicknesses are 90 mils [0.090 inch (2.29 mm)] and 105 mils [0.105 inch (2.67 mm)].

2.2 PVC Membranes:

2.2.1 Sure-Flex PVC Membrane: Sure-Flex PVC Membrane is a heat-weldable PVC thermoplastic membrane consisting of a weft-inserted polyester fabric that is encapsulated by PVC based top and bottom plies. Available thicknesses range from 50 mils [0.050 inch (1.27 mm)] to 80 mils [0.080 inch (2.03 mm)].

2.2.2 Sure-Flex KEE HP Membrane: Sure-Flex KEE HP Membrane is a heat-weldable thermoplastic membrane that consists of a polyester fabric that is encapsulated by KEE HP based top and bottom plies. Available thicknesses range from 50 mils [0.50 inch (1.27 mm)] to 80 mils [0.80 inch (2.03 mm)].

2.2.3 Sure-Flex PVC FRS Membrane: Sure-Flex PVC FRS Membrane is a heat-weldable thermoplastic membrane that consists of a fiberglass reinforcement encapsulated with PVC based top and bottom plies. Available thicknesses range from 60 mils [0.60 inch (1.52 mm)] to 80 mils [0.80 inch (2.03 mm)].

2.2.4 Sure-Flex PVC FleeceBACK Membrane: Sure-Flex PVC FleeceBACK Membrane consists of polyester reinforcing scrim and polyester fleece backing. Available thicknesses range from 115 mils [0.115 inch (2.92 mm)] to 135 mils [0.135 inch (3.43 mm)].

2.2.5 Sure-Flex KEE HP FleeceBACK Membrane: Sure-Flex KEE HP FleeceBACK Membrane consists of a polyester reinforcing scrim, polyester fleece backing, and DuPont® Elvaloy® KEE HP copolymer. Available thicknesses range from 105 mils [0.105 inch (2.67 mm)] to 135 mils [0.135 inch (3.43 mm)].

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2.2.6 Sure-Flex PVC FRS FleeceBACK Membrane: Sure-Flex PVC FRS FleeceBACK Membrane consists of a high-strength fiberglass scrim and polyester fleece backing. Available thicknesses range from 115 mils [0.115 inch (2.92 mm)] to 135 mils [0.135 inch (3.43 mm)].

2.2.7 Sure-Flex KEE HP FRS FleeceBACK Membrane: Sure-Flex KEE HP FRS FleeceBACK Membrane consists of a fiberglass reinforcing scrim, polyester fleece backing, and DuPont® Elvaloy® KEE HP copolymer. Available thicknesses range from 105 mils [0.105 inch (2.67 mm)] to 135 mils [0.135 inch (3.43 mm)].

2.3 TPO Membranes:

2.3.1 Sure-Weld TPO Membrane: Sure-Weld TPO Membrane consists of a polyester reinforcement encapsulated between two plies of TPO. The membrane is available in white, gray, tan and custom colors. Available thicknesses range from 45 mils [0.045 inch (1.14 mm)] to 60 mils [0.060 inch (1.52 mm)].

2.3.2 Sure-Weld EXTRA TPO Membrane: Sure-Weld EXTRA TPO Membrane is a thicker version of the Sure-Weld TPO Membrane specified in Section 3.4.1 for increased strength and weatherability. The membrane is available in white, gray, tan and custom colors. Available in a thickness of 80 mils (0.080 inch [2.03 mm]).

2.3.3 Sure-Weld HS TPO Membrane: Sure-Weld HS TPO Membrane is the Sure-Weld membrane formulated with an additional flame retardant for fire resistance at higher slopes. The membrane is available in white, gray, tan and custom colors. Available thicknesses are 45 mils (0.045 inch [1.14 mm]) and 60 mils (0.060 inch [1.52 mm]).

2.3.4 Sure-Weld SAT-TPO Membrane: Sure-Weld SAT-TPO Membrane is a self-adhered version of the Sure-Weld HS membrane with adhesive.

2.3.5 Sure-Weld FleeceBACK TPO Membrane: Sure-Weld FleeceBACK TPO Membrane is the Sure-Weld HS TPO Membrane, 45 mils [0.045 inch (1.14 mm)], 60 mils [0.060 inch (1.52 mm)] and 80 mils [0.080 inch (2.03 mm)] thick, with a laminated polyester fleece backing. Available thicknesses are 100 mils [0.100 inch (2.54 mm)], 115 mils [0.115 inch (2.92 mm)] and 135 mils [0.135 inch (3.43 mm)].

2.3.6 Sure-Weld AFX TPO Membrane: Sure-Weld AFX TPO Membrane is the Sure-Weld HS TPO Membrane with a laminated polyester fleece backing. Available thicknesses range from 120 mils [0.120 inch (3.05 mm)] to 155 mils [0.155 inch (3.94 mm)].

2.3.7 Spectro-Weld TPO Membrane: Spectro-Weld TPO Membrane is the Sure-Weld membrane, described in Section 3.4.1, formulated with a brighter white color. Available thicknesses are 60 mils [0.060 inch (1.52 mm)] and 80 mils [0.080 inch (2.03 mm)].

2.3.8 Spectro-Weld FleeceBACK TPO Membrane: Spectro-Weld FleeceBACK TPO Membrane is the Spectro-Weld membrane with a laminated 5.5-ounce-per-square-yard (0.18 kg/m²) polyester fleece backing. It is 115 mils [0.115 inch (2.92 mm)] thick.

2.4 Insulation:

See Tables 2 through 5 for insulations for use with specific roofing systems. Foam plastic insulation, where used, must have a flame-spread index of not more than 75 when tested at the maximum thickness intended for use in accordance with ASTM E84 or UL 723.

2.5 Barrier Board:

Barrier board, where used, must be either minimum 1/4-inch-thick (6.4 mm) Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard," minimum 1/4-inch-thick (6.4 mm) Owens Corning "StrataGuard," minimum 1/4-inch-thick (6.4 mm) USG Corporation "SECUROCK® Gypsum-Fiber Roof Board" or "SECUROCK® Glass-Mat Roof Board," or minimum 1/2-inch-thick (12.7 mm) gypsum board. Barrier board must be UL-classified for roofing applications or UL-classified gypsum board.

2.6 Slip Sheet:

The slip sheet, where used, must include Carlisle "FR Base Sheet 1S or 2S," GAF "VersaShield® Fire-Resistant Roof Deck Protection (ESR-2053)" or Atlas "FR 10 or FR 50." Slip sheets must be UL-classified for roofing applications.

2.7 Flashing:

Flashing must be provided in accordance with IBC Section 1503.2 or IRC Section R903.2, as applicable. Where flashing is of metal, the metal must be corrosion-resistant, minimum No. 26 gage [0.019 inch (0.483 mm)] galvanized steel.

2.8 Fasteners:

Fasteners, used to mechanically attach insulation and membranes to the roof deck, must be corrosion-resistant, and must be Carlisle fasteners, plates or fastening bars, unless otherwise noted in this report. Refer to Table 4 and 5 for spacing of fasteners.

2.8.1 HP Fastener: This is an epoxy-coated steel screw used in combination with Carlisle's fastening plates or bars to mechanically attach roofing insulation and membranes to steel or wood substrate. Fastener length must be selected to penetrate through the steel deck a minimum of 3/4 inch (19.1 mm), and into the wood deck a minimum of 1 inch (25.4 mm).

2.8.2 InsulFast Insulation Fastener: This is an epoxy-coated steel screw used in combination with Carlisle's insulation plates to mechanically attach roofing insulation to steel or wood substrates. Fastener length must be selected to penetrate through the steel deck a minimum of 3/4 inch (19.1 mm), or into the wood deck a minimum of 1 inch (25.4 mm).

2.8.3 HP Purlin Fastener: This is an epoxy-coated steel screw used in combination with Carlisle's fastening plates or bars to mechanically attach roofing insulation and membranes to structural steel members. Fastener length must be selected to penetrate through the steel member a minimum of 3/4 inch (19.1 mm).

2.8.4 HD 14-10 Fastener: This is a heavy-duty, epoxy-coated steel screw used in combination with Carlisle's fastening plates or bars to mechanically attach roofing insulation and membranes to concrete roof deck. Fastener length must be selected to penetrate into the concrete deck a minimum of 1 inch (25.4 mm).

2.8.5 CD-10 Fastener: The CD-10 is an epoxy-coated, hammer-driven, nonthreaded fastener specifically designed to be used with insulation and seam fastening plates to secure membrane and insulation to structural concrete. Fastener length must be selected to penetrate into the concrete deck a minimum of 1 inch (25.4 mm).

2.8.6 Lite-Deck Fastener: The Lite-Deck Fastener is used in conjunction with a specially designed 3-inch (76.2 mm) Lite-Deck Metal Plate for insulation attachment to gypsum, cementitious wood fiber (Tectum [ESR-1112]),

and lightweight concrete decks. Fastener length must be selected to penetrate into the deck a minimum of 2 inches (50.8 mm).

2.8.7 GypTec Fastener: The GypTec Fastener is a glass-filled nylon auger fastener designed for securing mechanically attached membranes and insulation to gypsum and cementitious wood fiber (Tectum [ESR-1112]) decks. Fastener length must be selected to penetrate into the deck a minimum of 1.5 inches (38.1 mm).

2.8.8 HP Polymer Seam Plate: This is a 2-inch-diameter (50 mm) polymer plate designed to be used with HP and HD 14-10 fasteners to mechanically attach roofing membranes to the roof deck.

2.8.9 Sure-Tite Fastener and ST Fastening Bar: This is a heavy-duty, epoxy-coated steel screw and bar used to secure reinforced EPDM membranes to steel or wood deck. The bar is 1-inch-wide-by-0.040-inch-thick-by-10-foot-long (25.4 mm by 1.1 mm by 3.1 m) galvalume-coated steel with pre-punched holes 6 inches (150 mm) on center.

2.8.10 HP-X Fastener: This is an epoxy-coated carbon steel screw used in combination with the Piranha Fastening Plate to mechanically attach TPO membranes to steel or wood substrate. Fastener length must be selected to penetrate through the steel deck a minimum of $\frac{3}{4}$ inch (19.1 mm), and into the wood deck a minimum of 1 inch (25.4 mm).

2.8.11 Piranha Fastening Plate: This is a $2\frac{3}{8}$ -inch-diameter galvalume-coated steel plate designed to be used with HP-X fasteners to mechanically attach PVC and TPO membranes to the roof deck.

2.8.12 HP-XTRA Fastener: This is an epoxy-coated carbon steel screw used in combination with the Piranha XTRA Fastening Plate to mechanically attach PVC and TPO membranes to steel or wood substrate. Fastener length must be selected to penetrate through the steel deck a minimum of $\frac{3}{4}$ inch (19.1 mm) and into the wood deck a minimum of 1 inch (25.4 mm).

2.8.13 Piranha XTRA Fastening Plate: This is a $2\frac{3}{8}$ -inch-diameter galvalume-coated steel plate designed to be used with HP-XTRA fasteners to mechanically attach PVC and TPO membranes to the roof deck.

2.8.14 PVC Oval Barbed Plate: This is a $1\frac{1}{2}$ -inch-by- $2\frac{3}{4}$ -inch (35 mm by 69.85 mm) Oval Barbed Plate designed to be used with HP-X Fasteners to mechanically attach PVC membranes to the roof deck.

2.8.15 OMG Roofing Products RhinoBond Plate: The RhinoBond Plate is a 3-inch-diameter (76.2 mm), 0.028-inch-thick (0.7 mm) galvalume-coated steel plate, coated with a proprietary adhesive and used with the HP-X fastener to mechanically attach PVC and TPO membranes to the roof deck. The adhesive bonds the plate to the underside of the membrane.

2.9 Carlisle SynTec Adhesives: See Tables 2 and 5 for adhered roofing systems.

2.9.1 90-8-30A Bonding Adhesive: 90-8-30A Bonding Adhesive is a high-strength, solvent-based contact adhesive used to adhere EPDM membranes to the insulation or substrate. It has a coverage rate of approximately 60 square feet per gallon (1.5 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers and has a shelf life of one year.

2.9.2 Aqua Base 120 Bonding Adhesive: Aqua Base 120 Bonding Adhesive is a high-strength, water-based contact adhesive used to adhere EPDM and TPO membranes to the insulation or substrate. It has a coverage rate of

approximately 120 square feet per gallon (3 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers and has a shelf life of one year.

2.9.3 Low-VOC PVC Bonding Adhesives: Low VOC PVC Bonding Adhesives is high-strength, solvent-based contact adhesives used to adhere PVC membranes to an insulation or substrate. They have a coverage rate of approximately 60 square feet per gallon (1.5 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.4 Sure-Weld TPO Bonding Adhesive: Sure-Weld TPO Bonding Adhesive is a high-strength, solvent-based contact adhesive used to adhere TPO membranes to an insulation or substrate. It has a coverage rate of approximately 60 square feet per gallon (1.5 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.5 Low VOC Bonding Adhesive: Low VOC Bonding Adhesive is a high-strength, solvent-based contact adhesive used to adhere EPDM and TPO membranes to an insulation or substrate. It has a coverage rate of approximately 60 square feet per gallon (1.5 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.6 HydroBond Water-Based Bonding Adhesive: HydroBond Water-Based Bonding Adhesive is a water-based, wet lay-in, one-sided adhesive to be used to adhere Sure-Flex PVC, Sure-Flex PVC FRS and FleeceBACK membranes to an insulation or substrate. It has a coverage rate of 100 square feet per gallon (2.5 m²/L). The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.7 Low VOC Bonding Adhesive 1168: Low VOC Bonding Adhesive 1168 is high-strength, solvent-based contact adhesive used to adhere EPDM and TPO membranes to an insulation or substrate. It has a coverage rate of approximately 60 square feet per gallon (1.58 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.8 Cold Applied Adhesive: Cold Applied Adhesive is a solvent-free, asphalt-modified polyether adhesive. This adhesive can be used with all Sure-Seal or Sure-Weld AFX membranes as a one-sided, wet lay-in adhesive. It has a coverage rate of 67 square feet per gallon (1.6 m²/L). The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.9 Flexible FAST Adhesives: Flexible FAST Adhesives are two-component polyurethane adhesives used to adhere FleeceBACK membranes and insulations to various substrates. The adhesives have a coverage rate of approximately 100 square feet per gallon (2.5 m²/L). The adhesives are supplied in 5-gallon (18.9 L) jugs, 15-gallon (56.7 L) and 50-gallon (189 L) drums, box sets, cartridge tubes, dual tanks, and/or cylinders, and have a shelf life of one year.

2.9.10 OlyBond 500 Adhesive: OMG Roofing Products OlyBond 500 Spot Shot and OlyBond 500 BA are two-component polyurethane adhesives used to adhere insulations to various substrates. The adhesives have a coverage rate of approximately 100 square feet per gallon (2.5 m²/L). The adhesives are supplied in cartridge tubes and box sets, and have a shelf life of one year.

2.9.11 EPDM X-23 Low-VOC Bonding Adhesive: EPDM X-23 Low-VOC Bonding Adhesive is a high strength, solvent-based contact adhesive used to adhere EPDM membranes to an insulation or substrate. It has a coverage rate of approximately 60 square feet per gallon (1.5 m²/L) when applied to the finished surface area. The adhesive is supplied in 5-gallon (18.9 L) containers with a shelf life of one year.

2.9.12 CAV-GRIP III Low-VOC Adhesive/Primer: CAV-GRIP III Low-VOC Adhesive/Primer is a contact adhesive used to adhere EPDM and TPO membranes to various substrates. It has a coverage rate of 1000 ft² per cylinder when applied to the finished surface area. The adhesive is supplied in No. 40 cylinders with a shelf life of one year (unopened).

2.10 Impact Resistance:

The EPDM, PVC, and TPO roofing membranes described in this report meet requirements for impact resistance in IBC Section 1504.7, based on testing in accordance with Section 4.6 of FM 4470.

3.0 INSTALLATION

3.1 General:

Installation of the EPDM, PVC, and TPO roofing membranes described in this report must comply with the applicable code, the manufacturer's published installation instructions and this report. The manufacturer's published installation instructions must be available at all times on the jobsite during installation.

The substrate to which the membrane is to be applied must be clean, dry, and free of frost, loose fasteners, and other protrusions or contaminants that will interfere with the adhesion or attachment of the membrane or that will puncture the membrane. All materials must be protected against contact with incompatible materials. Where gypsum board is used as barrier board in the roofing assembly, weather protection must be provided to prevent damage to the gypsum board prior to application of the roofing membrane.

The slope of the roof on which the single-ply membranes are installed must not be more than the maximum slope indicated for the particular assembly as listed in Tables 2 and 3.

Penetrations and terminations of the roof covering must be flashed and made weather tight in accordance with the requirements of the membrane manufacturer and the applicable code.

3.2 Fire Classification:

3.2.1 New Construction: The adhered and mechanically fastened EPDM, PVC, and TPO single-ply membrane roofing systems, when installed in accordance with this report, are Class A, B or C roof covering systems in accordance with ASTM E108 or UL 790, as noted in Tables 2 and 3.

3.2.2 Reroofing: The existing deck must be inspected to verify that the structure to be reroofed is structurally sound and adequate to support and secure the roofing membrane. Prior to installation of new roof coverings, inspection by and written approval from the code official having jurisdiction must be required.

Class A, B or C roof covering systems may be installed over existing classified roof covering systems under the following conditions without additional roof classification tests, provided the resulting classification is the lower of the new or existing roofing classification:

- New uninsulated systems installed only over existing uninsulated assemblies.

- New insulated systems installed over existing uninsulated systems only.

3.3 Wind Resistance:

3.3.1 New Construction: The allowable wind uplift pressures for the EPDM, PVC, and TPO roofing membranes as parts of roof assemblies are noted in Tables 4 and 5.

Metal edge securement systems must be listed in accordance with the 2011 edition of ANSI/SPRI/FM4435 ES-1 and designed and installed for wind loads in accordance with IBC Section 1504.5 and IBC Chapter 16.

3.3.2 Reroofing: Mechanically anchored systems may be accepted based on the adequacy of anchors penetrating through existing roof coverings into structural substrates. Since the composition and/or condition of any particular existing underlying material may vary widely, reroofing with adhered systems is outside the scope of this report.

4.0 CONDITIONS OF USE

The single-ply EPDM, PVC, and TPO roofing membranes described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 4.1 Installation must comply with the applicable code, the manufacturer's published installation instructions and this report. The instructions within this report must govern if there are any conflicts between the manufacturer's installation instructions and this report.
- 4.2 The adhered and mechanically fastened single-ply membrane roofing systems must be installed by professional roofing contractors who are trained and approved by the manufacturer.
- 4.3 Foam plastic insulation must be separated from the interior of the building by an approved thermal barrier in accordance with IBC Section 2603.4.1.5 or IRC Section R316.4, as applicable.
- 4.4 Foam plastic insulation, where used, must bear the label of an approved agency indicating that the foam plastic has a flame-spread index of not more than 75 when tested at the maximum thickness intended for use in accordance with ASTM E84 or UL 723, subject to the approval of the code official.
- 4.5 Design wind uplift pressure on any roof area, including edge and corner zones, must not exceed the allowable wind uplift pressure for the system installed in that particular area. Refer to allowable wind uplift pressures for systems as listed in Tables 4 and 5.
- 4.6 The allowable wind uplift pressures listed in Tables 4 and 5 are for the roof covering system only. The deck and framing to which the system is attached must be designed for the applicable components and cladding wind loads in accordance with the applicable code.
- 4.7 When application is over existing roofs, documentation of the wind-uplift resistance of the composite roof construction must be submitted to the code official for approval at the time of permit application.
- 4.8 For buildings under the IBC, above deck thermal insulation board must comply with the applicable standards listed in IBC Table 1508.2 or IRC Table R906.2, as applicable.
- 4.9 The roofing membranes are manufactured at Carlisle, Pennsylvania; Greenville, Illinois; Tooele, Utah; and Senatobia, Mississippi, under a quality control program with inspections by ICC-ES.

5.0 EVIDENCE SUBMITTED

Data in accordance with ICC-ES Acceptance Criteria for Membrane Roof-covering Systems (AC75), dated July 2010 (editorially revised April 2021).

6.0 IDENTIFICATION

- 6.1** Each roll of the roofing membrane must bear a label noting the product name, the manufacturer's name (Carlisle SynTec Systems) or the name of the additional listee, the manufacturer's address or plant code and the ICC-ES evaluation report number (ESR-1463).

- 6.2** The report holder's contact information is the following:

**CARLISLE SYNTEC SYSTEMS, A DIVISION OF
CARLISLE CONSTRUCTION MATERIALS, LLC
POST OFFICE BOX 7000
CARLISLE, PENNSYLVANIA 17013
(717) 245-7000
www.carlislesyntec.com**

- 6.3** The Additional Listees' contact information is the following:

**MULE-HIDE PRODUCTS COMPANY, INC.
1195 PRINCE HALL DRIVE
BELOIT, WISCONSIN 53511
(800) 786-1492**

**VERSICO, A DIVISION OF CARLISLE
CONSTRUCTION MATERIALS, LLC
POST OFFICE BOX 1289
CARLISLE, PA 17013
(800) 992-7663**

**WEATHERBOND, A DIVISION OF CARLISLE
CONSTRUCTION MATERIALS, LLC
POST OFFICE BOX 251
PLAINFIELD, PENNSYLVANIA 17081
(866) 471-5125**

**ROOFING PRODUCTS INTERNATIONAL, INC.
57460 DEWITT STREET
ELKHART, INDIANA 46517
(800) 628-2957**

TABLE 1—PRODUCT NAMES (continued)

CARLISLE PRODUCT NAME	MULE-HIDE PRODUCT NAME	VERSICO PRODUCT NAME	WEATHERBOND PRODUCT NAME	ROOFING PRODUCTS INTERNATIONAL PRODUCT NAME
Cold Applied Adhesive	Cold Applied Adhesive	Cold Applied Adhesive	Cold Applied Adhesive	RPI Cold Applied Adhesive
Flexible FAST Adhesive	Helix® Max Low-Rise Adhesive	Flexible DASH Adhesive	Flexible DASH Adhesive	FastBond Flex Adhesive
OlyBond 500 Adhesive	-	OlyBond 500 Adhesive	OlyBond 500 Adhesive	OlyBond 500 Adhesive

TABLE 2—FIRE CLASSIFICATION ASSEMBLIES—ADHERED ROOFING SYSTEMS^{2,5}

SYSTEM NO.	ROOF CLASS	DECK	MAX SLOPE	BARRIER BOARD OR SLIP SHEET	INSULATION ¹	MEMBRANE
1	A	Noncombustible	1/4:12	—	Any of the following insulations, 1-inch min. thickness: Carlisle "SecurShield Polyiso", "InsulBase", Hunter Panels "H-Shield" or "H-Shield-CG"	Sure-Weld, Spectro-Weld
2			1/2:12			Sure-Seal FR, Sure-Tough, Sure-White, Sure-Seal FleeceBACK, Sure-Weld HS, Sure-Weld SAT-TPO, Sure-Weld FleeceBACK, Spectro-Weld FleeceBACK, Sure-White FleeceBACK
3			3/4:12			Sure-Flex PVC FleeceBACK, Sure-Flex KEE HP FleeceBACK, Sure-Flex PVC FRS FleeceBACK, Sure-Flex KEE HP FRS FleeceBACK
4			1 1/2:12			Sure-Flex PVC, Sure-Flex PVC FRS, Sure-Flex KEE HP
5	A	Noncombustible	3/4:12	—	1/2-inch-thick fiberboard ⁴ , 1/2-inch-thick fiberboard ⁴ or barrier board (see Section 3.6) over 5-inch max Insulfoam EPS ³ , 1/2-inch-thick fiberboard or barrier board (see Section 3.6) over System No. 1 insulations	Sure-White FleeceBACK
6			1:12			Sure-Seal FR, Sure-Tough
7			1 1/2:12			Sure-White, Sure-Seal FleeceBACK, Sure-Weld, Spectro-Weld, Sure-Weld HS, Sure-Weld SAT-TPO, Sure-Weld FleeceBACK, Spectro-Weld FleeceBACK, Sure-Flex PVC, Sure-Flex PVC FRS, Sure-Flex KEE HP, Sure-Flex PVC FleeceBACK, Sure-Flex KEE HP FleeceBACK, Sure-Flex PVC FRS FleeceBACK, Sure-Flex KEE HP FRS FleeceBACK
8	A	Noncombustible or Combustible - min. 1 5/32-inch-thick plywood or min. 7/16-inch-thick OSB.	3/4:12	1/4-inch thick "DensDeck Prime" or 1/4-inch thick "SECUROCK Gypsum Fiber Roof Board"	—	Sure-White FleeceBACK
9			1 1/2:12			Sure-White, Sure-Seal FleeceBACK
10			3:12			Sure-Tough, Sure-Weld, Spectro-Weld, Sure-Weld FleeceBACK, Spectro-Weld FleeceBACK
11			4:12			Sure-Weld HS, Sure-Weld SAT-TPO
12			Unlimited			Sure-Seal FR, Sure-Flex PVC, Sure-Flex PVC FRS, Sure-Flex KEE HP
13			3:12			Sure-Flex PVC FleeceBACK, Sure-Flex KEE HP FleeceBACK, Sure-Flex PVC FRS FleeceBACK, Sure-Flex KEE HP FRS FleeceBack

TABLE 1—PRODUCT NAMES

CARLISLE PRODUCT NAME	MULE-HIDE PRODUCT NAME	VERSICO PRODUCT NAME	WEATHERBOND PRODUCT NAME	ROOFING PRODUCTS INTERNATIONAL PRODUCT NAME
Sure-Seal EPDM	Mule-Hide Standard Black EPDM	VersiGard Non-reinforced EPDM	WeatherBond EPDM Non-Reinforced Membrane	Royal Edge Non-Reinforced EPDM
Sure-Seal FR EPDM	Mule-Hide FR EPDM	VersiGard FR Non-Reinforced EPDM	WeatherBond EPDM FR Non-Reinforced Membrane	Royal Edge Non-Reinforced FR EPDM
Sure-Seal FleeceBACK EPDM	-	VersiFleece EPDM	WeatherBond Fleece EPDM Membrane	Royal Edge EPDM FleeceBACK
Sure-Seal AFX EPDM	-	VersiFleece AC EPDM	WeatherBond EPDM AC Fleece Membrane	-
Sure-Tough EPDM	Mule-Hide Standard Reinforced EPDM	VersiGard Reinforced EPDM	WeatherBond EPDM Reinforced Membrane	Royal Edge Reinforced EPDM
Sure-White	Mule-Hide White-on-Black EPDM	VersiGard -White Standard	WeatherBond EPDM White Membrane	Re-Flex White EPDM
Sure-White FleeceBACK	-	-	-	Re-Flex White EPDM FleeceBACK
Sure-Weld TPO	Mule-Hide TPO-c	VersiWeld Reinforced TPO Membrane	WeatherBond TPO Membrane	Re-Flex TPO
Sure-Weld HS TPO	Mule-Hide TPO-c (FR)	VersiWeld HS	WeatherBond TPO High Slope Membrane	Re-Flex TPO HS
Sure-Weld SAT-TPO	Mule-Hide SA-TPO	VersiWeld QA TPO Membrane	WeatherBond TPO PAS Membrane	Re-Flex TPO SAT
Sure-Weld TPO FleeceBACK	Mule-Hide TPO-c Fleece Back	VersiFleece TPO	WeatherBond FleeceTPO Membrane	Re-Flex TPO FleeceBACK
Sure-Weld TPO AFX	Mule-Hide TPO-c Fleece Back Plus	VersiFleece AC TPO	WeatherBond TPO AC Fleece Membrane	-
Spectro-Weld TPO	-	-	-	-
Spectro-Weld FleeceBACK TPO	-	-	-	-
Sure-Flex PVC	Mule-Hide PVC Membrane	VersiFlex PVC	WeatherBond PVC Membrane	Re-Flex PVC
Sure-Flex KEE HP	Mule-Hide PVC KEE HP Membrane	VersiFlex KEE HP	WeatherBond KEE HP Membrane	Re-Flex KEE HP
Sure-Flex PVC FRS	Mule-Hide PVC FRS Membrane	VersiFlex FRS PVC	WeatherBond PVC FRS Membrane	Re-Flex FRS PVC
Sure-Flex PVC FleeceBACK	Mule-Hide PVC FleeceBack Membrane	VersiFleece PVC	WeatherBond PVC Fleece Membrane	-
Sure-Flex KEE HP FleeceBACK	Mule-Hide PVC KEE HP Fleece Back Membrane	VersiFleece KEE HP	WeatherBond KEE HP Fleece Membrane	-
Sure-Flex PVC FRS FleeceBACK	-	VersiFleece FRS PVC	WeatherBond PVC FRS Fleece Membrane	Re-Flex FRS PVC FleeceBACK
Sure-Flex KEE HP FRS FleeceBACK	-	VersiFleece FRS KEE HP	WeatherBond KEE HP FRS Fleece Membrane	-
90-8-30A Bonding Adhesive	Mule-Hide Bonding Adhesive	G200SA Yellow Substrate Adhesive	LC-60 Bonding Adhesive	Royal Edge Bonding Adhesive
EPDM X-23 Low- VOC Bonding Adhesive	EPDM X-23 Low VOC Bonding Adhesive	EPDM X-23 Low VOC Bonding Adhesive	EPDM X-23 Low VOC Bonding Adhesive	-
Aqua Base 120 Bonding Adhesive	Aqua Base 120 Bonding Adhesive	Aqua Base 120 Bonding Adhesive	Aqua Base 120 Bonding Adhesive	Royal Edge Water Based Bonding Adhesive
Sure-Weld TPO Bonding Adhesive	Mule-Hide TPO-c Bonding Adhesive	VersiWeld TPO Bonding Adhesive	TPO Bonding Adhesive	Royal Edge EPDM/TPO Bonding Adhesive
Low VOC Bonding Adhesive	Low VOC Bonding Adhesive	LOW VOC Bonding Adhesive	Low VOC Bonding Adhesive	Royal Edge Low VOC Bonding Adhesive
Low VOC Bonding Adhesive 1168	Low VOC Bonding Adhesive 1168	Low VOC Bonding Adhesive 1168	Low VOC Bonding Adhesive 1168	--
Low VOC PVC Bonding Adhesive	Low -VOC PVC Bonding Adhesive	Low-VOC PVC Bonding Adhesive	Low-VOC PVC Bonding Adhesive	Re-Flex PVC Low VOC Bonding Adhesive
HydroBond Water-Based Bonding Adhesive	HydroBond Water-Based Bonding Adhesive-	HydroBond Water-Based Bonding Adhesive	HydroBond Water-Based Bonding Adhesive	=
CAV-GRIP III Low VOC Adhesive/Primer	AeroWeb Adhesive	Cav-Grip 3V Low VOC Adhesive/Primer	Cav-Grip III Low VOC Adhesive/Primer	-

TABLE 2—FIRE CLASSIFICATION ASSEMBLIES—ADHERED ROOFING SYSTEMS^{2,5} (continued)

SYSTEM NO.	ROOF CLASS	DECK	MAX SLOPE	BARRIER BOARD OR SLIP SHEET	INSULATION ¹	MEMBRANE
14	A	Combustible min. ¹⁵ / ₃₂ -inch-thick plywood or min. ⁷ / ₁₆ -inch-thick OSB.	¹ / ₄ :12	Barrier board (see Section 3.6) or Slip sheet: 2 layers (see Section 3.7)	Any of the following insulations, 1-inch min. thickness: Carlisle "SecurShield Polyiso", "InsulBase", Hunter Panels "H-Shield" or "H-Shield-CG"	Sure-Weld, Spectro-Weld
15			¹ / ₂ :12			Sure-Seal FR, Sure-Tough, Sure-White, Sure-Seal FleeceBACK, Sure-Weld HS, Sure-Weld SAT-TPO, Sure-Weld FleeceBACK, Spectro-Weld FleeceBACK, Sure-White FleeceBACK
16			³ / ₄ :12			Sure-Flex PVC FleeceBACK, Sure-Flex KEE HP FleeceBACK, Sure-Flex PVC FRS FleeceBACK, Sure-Flex KEE FRS FleeceBACK
17			2:12			Sure-Flex PVC, Sure-Flex PVC FRS, Sure-Flex KEE HP
18	C	Noncombustible or Combustible min. ¹⁵ / ₃₂ -inch-thick plywood or min. ⁷ / ₁₆ -inch-thick OSB.	Unlimited	—	Any of the following insulations, min. 1-inch thickness: Carlisle "InsulBase" or Hunter Panels "H-Shield"	Any EPDM, PVC or TPO Membrane specified in this report
19	A	Combustible	¹ / ₂ :12	—	Single layer of minimum 3.0" or double layer of minimum 1.5" Carlisle "SecurShield Polyiso" or Hunter Panels "H-Shield-CG"	Any EPDM, PVC or TPO Membrane specified in this report
20	A	Combustible	¹ / ₂ :12	—	Single layer of minimum 1.9" Carlisle "SecurShield Polyiso" or Hunter Panels "H-Shield-CG"	Any EPDM, PVC or TPO Membrane specified in this report

For SI: 1 inch = 25.4 mm.

¹All foam plastic insulation must be UL-classified foamed plastic for roofing systems, and must be limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.²See Section 3.10 for adhesive application rate.³UL Classified EPS may be installed below min. 1-inch-thick Carlisle or Hunter Panels polyisocyanurate insulations (max slope 1:12) or below min. ¹/₂-inch-thick Carlisle SecurShield HD or Hunter Panels H-Shield HD (max slope 2:12) on noncombustible decks.⁴Carlisle SecurShield HD or Hunter Panels H-Shield HD may replace fiberboard and may be used as a coverboard over any insulation. When these two boards are used directly below the Sure-Weld membrane, the slope is limited to max. ¹/₂:12.⁵When these systems are used for reroofing or recovering, installation must be in accordance with Sections 4.2.2 and 5.7 of this report, and 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510], 2021, 2018 and 2015 IRC Section R908 [2012 and 2009 IRC Section R907], as applicable.

TABLE 3—FIRE CLASSIFICATION ASSEMBLIES—MECHANICALLY FASTENED ROOFING SYSTEMS⁴

SYSTEM NO.	ROOF CLASS	DECK	MAX. SLOPE	BARRIER BOARD OR SLIP SHEET	INSULATION ¹	MEMBRANE/MAX. ROOF SLOPE
1	A	Noncombustible	1/2:12	—	Any of the following insulations, 1-inch min. thickness: Carlisle "SecurShield Polyiso" or "InsulBase", Hunter Panels "H-Shield" or "H-Shield-CG"	Sure-Tough, Sure-Weld, Spectro-Weld
2			1 1/2:12			Sure-Weld HS
3			2 1/2:12			Sure-Flex PVC, Sure-Flex KEE HP
4	A	Noncombustible	1:12	—	1/2-inch-thick fiberboard ³ , 1/2-inch-thick fiberboard ⁴ or barrier board (see Section 3.6) over 5-inch max Insulfoam EPS ² , 1/2-inch-thick fiberboard or barrier board (see Section 3.6) over System No. 1 insulations	Sure-Tough, Sure-Flex
5			1 1/2:12			Sure-Weld, Spectro-Weld, Sure-Weld HS
6	A	Noncombustible	1/2:12	—	Insulfoam SP, 5-inch max thickness	Sure-Weld, Spectro-Weld, Sure-Weld HS, Sure-Flex, Sure-Flex KEE HP
7	A	Noncombustible	1:12	—	"Insulfoam SP" or min. 1/2-inch-thick Insulfoam EPS covered with "Insulfoam SP"	Sure-Weld, Spectro-Weld, Sure-Weld HS, Sure-Tough
8	A	Noncombustible or Combustible min. 15/32-inch-thick plywood or min. 7/16-inch-thick OSB.	3:12	Barrier board (see Section 3.6)	—	Sure-Tough, Sure-Weld, Spectro-Weld
9			3 1/2:12			Sure-Tough FR
10			Unlimited			Sure-Weld HS, Sure-Flex, Sure-Flex KEE HP
11	A	Combustible min. 15/32-inch-thick plywood or min. 7/16-inch-thick OSB.	1/2:12	Barrier board (see Section 3.6) or Slip sheet: 2 layers, (see Section 3.7)	Any of the following insulations, 1-inch min. to 6-inch max. thickness: Carlisle "SecurShield Polyiso" or "InsulBase", Hunter Panels "H-Shield" or "H-Shield-CG"	Sure-Tough, Sure-Weld, Spectro-Weld
12			1 1/2:12			Sure-Weld HS
13			3/4:12			Sure-Tough FR
14			2 1/2:12			Sure-Flex PVC, Sure-Flex KEE HP
15	A	Combustible min. 15/32-inch-thick plywood or min. 7/16-inch-thick OSB	1:12	Slip sheet, 2 layers (see Section 3.7)	—	Sure-Tough
16			1 1/2:12			Sure-Tough FR, Sure Weld, Spectro-Weld, Sure-Weld HS, Sure-Flex, Sure-Flex KEE HP
17	B	Combustible min. 15/32-inch-thick plywood or min. 7/16-inch-thick OSB.	1 1/2:12	Slip sheet, 1 layer (see Section 3.7)	—	Sure-Tough, Sure-Tough FR, Sure-Weld, Spectro-Weld, Sure-Weld HS, Sure-Flex, Sure-Flex KEE HP
18	C	Combustible min. 15/32-inch-thick plywood or min. 7/16-inch-thick OSB.	Unlimited	—	Any of the following insulations, 1-inch min. thickness: Carlisle "SecurShield Polyiso" or "InsulBase", Hunter Panels "H-Shield" or "H-Shield CG"	Any EPDM, PVC or TPO Membrane specified in this report
19	A	Combustible	1/2:12	—	Single layer or double layer of minimum 1-inch Carlisle "SecurShield Polyiso" or Hunter Panels "H-Shield-CG"	Any EPDM, PVC or TPO Membrane specified in this report
20	A	Combustible	1:12	—	Minimum 1/2-inch Carlisle "SecurShield HD", "SecurShield HD Plus", "SecurShield HD NH", "SecurShield HD Plus NH", "SecurShield HD Plus", or "SecurShield HD RL"	Any EPDM, PVC or TPO Membrane specified in this report

For SI: 1 inch = 25.4 mm.

¹All foam plastic insulation must be UL-classified foamed plastic for roofing systems, and must be limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.²UL Classified EPS may be installed below min. 1-inch-thick Carlisle or Hunter Panels polyisocyanurate insulations (max slope 1:12) or below min. 1/2-inch-thick Carlisle SecurShield HD or Hunter Panels H-Shield HD (max slope 2:12) on noncombustible decks.³Carlisle SecurShield HD or Hunter Panels H-Shield HD may replace fiberboard and may be used as a coverboard over any insulation. When these two boards are used directly below the Sure-Weld membrane, the slope is limited to 1/2:12.⁴When these systems are used for reroofing or recovering, installation must be in accordance with Sections 4.2.2 and 5.7 of this report, and 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510], 2021, 2018 and 2015 IRC Section R908 [2012 and 2009 IRC Section R907], as applicable.

TABLE 5—WIND RESISTANCE—ADHERED ASSEMBLIES^{5,6}

SYSTEM NO.	ALLOWABLE WIND UPLIFT (FIELD) (psf)	DECK ²	INSULATION / MIN. THICKNESS ^{1,3}	INSULATION FASTENING RATE	MEMBRANE TYPE
1	45	Combustible or Noncombustible	1/2 inch fiberboard ⁴ , 15/32 inch OSB, or 1/4-inch thick "DensDeck Prime" or 1/4-inch thick "SECUROCK Gypsum Fiber Roof Board"	1 per 2 ft ²	EPDM, PVC and TPO Membranes
2	45	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 1.4 inch with 1/2-inch SECUROCK coverboard (optional)	1 per 3.2 ft ²	EPDM, PVC and TPO Membranes
3	45	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 2.0 inch with 5/8-inch SECUROCK coverboard (optional)	1 per 4 ft ²	EPDM, PVC and TPO Membranes
4	68	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 1.0 inch	FAST Adhesive	FleeceBACK Membranes
5	75	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 2.0 inch with 1/2-inch SECUROCK coverboard (optional)	1 per 1.6 ft ²	EPDM, PVC and TPO Membranes
6	113	Combustible or Noncombustible	Carlisle "SecurShield" or "H-Shield CG" / 2.0 inch	1 per 1 ft ²	PVC Membranes
7	120	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 2.0 inch	1 per 1 ft ²	TPO Membranes; EPDM membranes (with noncombustible deck only)
8	128	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 2.0 inch with 1/2-inch SECUROCK coverboard (optional)	1 per 1 ft ²	EPDM and TPO Membranes
9	135	Combustible or Noncombustible	Carlisle "InsulBase" or "SecurShield Polyiso"; Hunter Panels "H-Shield" or "H-Shield-CG" / 2.0 inch with 1/2-inch SECUROCK coverboard (optional)	1 per 1 ft ²	FleeceBACK Membranes
10	143	Combustible or Noncombustible	1/2 inch DensDeck Prime	1 per 1 ft ²	FleeceBACK Membranes

For SI: 1 inch = 25.4 mm; 1 ft = 0.305 m; 1 psf = 47.88 Pa

¹All foam plastic insulation must be UL-classified foamed plastic for roofing systems, and must be limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.

²Steel deck must be minimum No. 22 gage galvanized steel [base-metal thickness 0.030 inch (0.76 mm)]. Concrete must have a minimum compressive strength (f_c) of 2500 psi. See Section 5.6 of this report.

³UL Classified EPS may be installed below min. 1-inch-thick Carlisle or Hunter Panels polyisocyanurate insulations (max slope 1:12) or below min. 1/2-inch-thick Carlisle SecurShield HD or Hunter Panels H-Shield HD (max slope 2:12) on noncombustible decks.

⁴Carlisle SecurShield HD or Hunter Panels H-Shield HD may replace fiberboard and may be used as a coverboard over any insulation. When these two boards are used directly below the Sure-Weld membrane, the slope is limited to 1/2:12.

⁵When application is over existing roofs, documentation of the wind-uplift resistance of the composite roof construction must be submitted to the code official for approval at the time of permit application. For reroofing or recovering, installation must be in accordance with 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510], 2021, 2018 and 2015 IRC Section R908 [2012 and 2009 IRC Section R907], as applicable.

⁶See Section 3.10 for adhesive application rate.

TABLE 4—WIND RESISTANCE—MECHANICALLY FASTENED ASSEMBLIES^{4,7}

SYSTEM NO.	MAXIMUM ALLOWABLE WIND UPLIFT (psf)	DECK ³	INSULATION ⁵	MEMBRANE	MEMBRANE FASTENING	MAXIMUM FASTENER SPACING (Inches)	MAXIMUM FASTENER ROW SPACING ⁸
1	45	Noncombustible	Foam plastic insulation ^{1,2} , 1/2-inch-thick fiberboard ⁶ or barrier board (See Sect. 3.6)	Sure-Tough	HP-X Fastener & Metal Fastening Bar	12	6 ft 6 inches
2	75	Noncombustible	Same as System No. 1	Sure-Tough	HP-X Fastener & Metal Fastening Bar	6	6 ft 6 inches
3	52	Noncombustible	Same as System No. 1	Sure-Tough	HP Fastener & Polymer Seam Plate	6	9 ft 6 inches
4	45	Noncombustible	Same as System No. 1	Sure-Tough	Sure-Tite Fastener & ST Fastening Bar	12	9 ft 6 inches
5	30	Noncombustible	Same as System No. 1	Sure-Tough (75 mil)	HP Fastener & Polymer Seam Plate	12	9 ft 6 inches
6	60	Noncombustible	Same as System No. 1	Sure-Tough (75 mil)	HP Fastener & Polymer Seam Plate	6	9 ft 6 inches
7	45	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	12	7 ft 6 inches
8	45	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-Xtra Fasteners with Piranha Xtra Plates	12	9 ft 6 inches
9	60	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	6	9 ft 6 inches
10	67	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	6	7 ft 6 inches
11	30	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	12	11 ft 6 inches
12	60	Noncombustible	Same as System No. 1	Sure-Weld or Spectro-Weld	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	6	11 ft 6 inches
13	53	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X Fasteners with Piranha Plates	6	6 ft 4 inches
14	83	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X Fasteners with Piranha Plates	6	2 ft 11 inches
15	30	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	18	6 ft 4 inches
16	45	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X or HP-Xtra Fasteners with Piranha or Piranha Xtra Plates	12	6 ft 4 inches
17	53	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X Fasteners with Piranha Plates	12	2 ft 11 inches
18	60	Noncombustible	Same as System No. 1	Sure-Flex PVC or Sure-Flex KEE HP	HP-X or HP-Xtra Fasteners with Piranha Plates	6	9 ft 7 inches
19	45	Noncombustible	Same as System No. 1	Sure-Weld	HP-X Fasteners with OMG RhinoBond Plates	1 per 5.3 ft ²	N/A
20	60	Noncombustible	Same as System No. 1	Sure-Weld	HP-X Fasteners with OMG RhinoBond Plates	1 per 4 ft ²	N/A

For SI: 1 inch = 25.4 mm; 1 ft = 0.305 m; 1 psf = 47.88 Pa.

¹Foam plastic insulation must be any of the following (1-inch min. to 6-inch max. thickness): Carlisle "SecurShield Polyiso", "InsulBase" Hunter Panels "H-Shield" or Hunter Panels "H-Shield- CG".

²All foam plastic insulation must be UL-classified foamed plastic for roofing systems, and must be limited to the maximum thickness in accordance with Section 5.4 of this report or the maximum thickness in accordance with this table, whichever is less.

³Steel deck must be minimum No. 22 gage galvanized steel [base-metal thickness 0.030 inch (0.76 mm)]. Concrete must have a minimum compressive strength (f'_c) of 2500 psi. See Section 5.6 of this report.

⁴For existing metal roofing, the assemblies listed must be installed by fastening through the roofing and into structural members (purlins, angle iron, beams, etc.) capable of resisting all expected loads. The maximum allowable wind uplift (field) pressures are shown in Column 2.

⁵UL Classified EPS may be installed below min. 1-inch-thick Carlisle or Hunter Panels polyisocyanurate insulations (max slope 1:12) or below min. 1/2-inch-thick Carlisle SecurShield HD or Hunter Panels H-Shield HD (max slope 2:12) on noncombustible decks.

⁶Carlisle SecurShield HD or Hunter Panels H-Shield HD may replace fiberboard and may be used as a coverboard over any insulation. When these two boards are used directly below the Sure-Weld membrane, the slope is limited to 1/2:12.

⁷When these systems are used for reroofing or recovering, installation must be in accordance with Sections 4.2.2 and 5.7 of this report, and 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510], 2021, 2018 and 2015 IRC Section R908 [2012 and 2009 IRC Section R907], as applicable.

⁸Fastener row spaces shown are for field of roof only. See Section 4.3 for recognized fascia systems for mechanically fastened roof assemblies. Distance between the edge of the roof and the first row of fasteners must be determined accordingly.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 53 23—Ethylene-Propylene-Diene-Monomer Roofing
Section: 07 54 19—Polyvinyl-Chloride Roofing
Section: 07 54 23—Thermoplastic-Polyolefin Roofing

REPORT HOLDER:

CARLISLE SYNTEC SYSTEMS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC

EVALUATION SUBJECT:

CARLISLE EPDM, PVC AND TPO SINGLE-PLY ROOFING MEMBRANES

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes, described in ICC-ES evaluation report ESR-1463, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes, described in Sections 2.0 through 7.0 of the evaluation report ESR-1463, comply with the LABC Chapters 7A and 15, the LARC Section R337 and LARC Chapter 9, and are subjected to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes, described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-1463.
- The design, installation, conditions of use and identification are in accordance with the 2018 *International Building Code*® (IBC) and 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report ESR-1463.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, or LARC Chapter 3, as applicable.
- The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes must not be installed over existing wood shakes or wood shingles in accordance with LABC Section 1511.
- The installation of the Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes must comply with City of Los Angeles Information Bulletin P/BC 2020-16, "Dwellings in High Wind Velocity Areas (HWA)".
- Reroofing applications must comply with Sections 4.2.2, 4.3.2 and 5.7 of the evaluation report ESR-1463 and LABC Section 1511 or LARC Section R908, as applicable. Where spaced sheathing exists, a minimum of 15/32-inch-thick (11.9 mm) plywood shall be installed prior to roofing installations.
- Where moderate or heavy foot traffic occurs for maintenance of equipment, the roof covering shall be adequately protected.
- The Building Inspector shall be notified 24 hours in advance prior to installation of the roof membranes.

- The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of Sections 701A.3 and 705A of the LABC.
- The Carlisle EPDM, PVC and TPO Single-ply Roofing Membranes may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of Sections R337.3.1 and R337.5 of the LARC.

This supplement expires concurrently with the evaluation report, reissued October 2022.

REQUESTED COUNCIL MEETING DATE: July 6, 2023

ITEM: Bill No. 2023-158: Contract with Guaranteed Roofing for City Hall and Auditorium

ORIGINATING DEPARTMENT: Development Services Department

ATTACHMENT:

1. Bill No. 2023-158 Guarantee Roofing Inc. RE City Hall and Civi roof - 2023
 2. Contract Guarantee Roofing Inc. RE City Hall and Civic roof - 2023
 3. Guarantee Roofing, Incorporated Bid
-

PURPOSE:

The purpose of this item is to gain the council's authorization for the mayor to sign the ordinance and contract with Guarantee Roofing to replace the roofing on the city hall and auditorium.

BACKGROUND:

Guarantee Roofing has submitted the low bid of \$366,040.00 for replacing the roofs of the city hall and auditorium.

RECOMMENDATION:

The staff recommends the city council authorizes the mayor to sign the ordinance and contract for the roofing agreement with the city.

AN ORDINANCE authorizing the City of Neosho, Missouri, to enter into an Agreement for Construction Services with Guarantee Roofing, Inc., a Missouri Corporation, for the purpose of removing existing roofs and constructing new roofs at City Hall and the Civic Center for the not to exceed price of Three Hundred Sixty-Six Thousand Forty and 00/100 (\$366,040.00); and authorizing the Mayor to execute the same by and on behalf of the City of Neosho.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, as follows:

Section 1. That the Agreement for Construction Services by and between the City of Neosho, Missouri, and Guarantee Roofing, Inc., a Missouri Corporation, for the purpose of removing existing roofs and constructing new roofs at City Hall and the Civic Center for the not to exceed price of Three Hundred Sixty-Six Thousand Forty and 00/100 (\$366,040.00), a true and accurate copy of said Agreement being attached hereto and incorporated as Exhibit "A," be and the same is hereby approved.

Section 2. That the Mayor of the City of Neosho, Missouri, is hereby authorized and directed to execute said Agreement by and on behalf of the City of Neosho.

Section 3. That this Ordinance shall be in full force and effect from and after its passage.

PASSED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, this ____ day of _____, 2023, by a vote of _____.

Richard Davidson, Mayor

ATTEST:

Cheyenne Wright, City Clerk

APPROVED AS TO FORM:

Jordan L. Paul, City Attorney

AGREEMENT
FOR CONSTRUCTION SERVICES

THIS AGREEMENT is made and entered into this ____ day of _____, 2023, hereinafter referred to as “the Effective Date,” by and between the City of Neosho, Missouri, a Missouri Municipal Corporation, hereinafter referred to as “City,” and Guarantee Roofing, Inc., a Missouri Corporation, hereinafter referred to as “Contractor,” and with City and Contractor hereinafter referred to as “the Parties.”

WITNESSETH:

WHEREAS, City desires to engage a contractor for the purpose of removing existing roofs and constructing new roofs at City Hall, 203 E. Main St., Neosho, MO 64850, and the Civic Center, 109 W. Main St., Neosho, MO 64850, as described in City’s Request for Proposal, attached hereto and incorporated by reference as Exhibit A; and

WHEREAS, Contractor desires to be engaged as City’s contractor for the purpose of removing existing roofs and constructing new roofs at City Hall, 203 E. Main St., Neosho, MO 64850, and the Civic Center, 109 W. Main St., Neosho, MO 64850, as described in Contractor’s Response to City’s Request for Proposal, attached hereto and incorporated by reference as Exhibit B; and

WHEREAS, City has selected Contractor as the lowest and best bidder based on full consideration of all factors, preferences, and conditions deemed applicable by City.

NOW, THEREFORE, in exchange for valuable consideration each received from the other, the receipt and sufficiency of which is hereby acknowledged, the Parties do hereby agree as follows:

1. Manner and Time for Completion. Contractor agrees to furnish all supervision, labor, tools, equipment, materials, and supplies necessary to perform, and to perform said work at Contractor’s own expense in accordance with the Contract Documents and any applicable City ordinances and state and federal laws within ninety (90) calendar days from the date Contractor is ordered to proceed, which order shall be issued by the City Manager or his designee within thirty (30) days after the Effective Date of this Agreement.

2. Scope of Work. Contractor agrees to diligently perform in a professional and workmanlike manner the construction services described in City’s Request for Proposal, attached hereto and incorporated by reference as Exhibit A, and in Contractor’s Response to City’s Request for Proposal, attached hereto and incorporated by reference as Exhibit B. Specifically, Contractor agrees to remove existing roofs and construct new roofs at City Hall, 203 E. Main St., Neosho, MO 64850, and the Civic Center, 109 W. Main St., Neosho, MO 64850.

3. Payment. City will pay Contractor as set forth herein, which shall constitute full and complete compensation for Contractor’s work. City will pay Contractor Three Hundred Sixty-Six Thousand Forty and 00/100 (\$366,040.00) – the full amount of this contract – no later than the

third Tuesday of the month after Contractor's completion and City's acceptance of the work.

4. Amendments. The covenants and obligations herein contained are the full and complete terms of this Agreement, and no alteration, amendments, or changes to such terms shall be binding unless first reduced to writing and executed with the same formality as this Agreement.

5. Assignment. This Agreement, including payment hereunder, shall not be sub-let, assigned, or otherwise disposed of, except with the prior written consent of City.

6. Attorney's Fees and Expenses. If City files suit in order to enforce any term of this Agreement and is the prevailing party, Contractor shall be liable for City's reasonable attorney's fees and expenses. In no event shall City be liable for Contractor's reasonable attorney's fees and expenses.

7. Choice of Law and Venue. This Agreement has been made, and its validity, performance and effect shall be determined, in accordance with the laws of the State of Missouri and venue for litigation between the parties shall be solely and exclusively in Newton County, Missouri.

8. Compliance with laws. Contractor shall observe and comply with all Federal, State, and local laws and ordinances that affect those employed or engaged by it on the project, or the material or equipment used, or the conduct of the work, and shall procure all necessary licenses, permits, and insurance.

9. Consequential Damages. In no event shall City be liable to Contractor for special, indirect, or consequential damages.

10. Contract Documents. The contract documents shall consist of the following: this Agreement, City's Request for Proposal, and Contractor's Response to City's Request for Proposal. In the event of conflict between the contract documents, this Agreement will prevail. In the event of conflict between City's Request for Proposal and Contractor's Response to City's Request for Proposal, City's Request for Proposal will prevail.

11. Entire Agreement. This Agreement (including any Exhibits) contains the entire understanding of the parties with respect to the subject matter hereof. It may not be altered or amended except by an agreement in writing signed by both parties.

12. Ethics. Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, gift, or contingent fee.

13. Guards and Lights. Contractor agrees that during the performance of said work, it will maintain proper guards for the prevention of accidents and put up and maintain suitable and sufficient lights.

14. Headings. The headings of paragraphs in this Agreement are for convenience only. The headings form no part of this Agreement and shall not affect its interpretation.

15. Indemnification. To the fullest extent permitted by law, Contractor agrees to defend with counsel selected by City, and indemnify and hold harmless City, its officers, engineers, representatives, agents, and employees from and against any and all liabilities, damages, losses, claims, or suits, including costs and attorneys' fees, for or on account of any kind of injury to person, bodily or otherwise, or death, or damage to or destruction of property, or any other circumstances, sustained by City or others, arising from breach or enforcement of this Agreement or out of services and operations negligently performed hereunder by Contractor, or claims relating thereto, and including but not limited to City's reliance on or use of the services or products provided by Contractor under the terms of this agreement. Contractor shall not be liable for any loss or damage attributable solely to the negligence of City. To the extent required by law to enforce this provision, Contractor agrees that this indemnification requires Contractor to obtain insurance in amounts specified herein and that Contractor has had the opportunity to recover the costs of such insurance in the Payment set forth in this Agreement.

16. Independent Contractor. This Agreement does not create an employer-employee relationship between the parties. Contractor is an independent contractor and is not entitled to any benefits including health, dental, vision, disability, life, and unemployment insurance, worker's compensation coverage, and LAGERS. Contractor is an independent contractor and not an employee for all purposes including the application of the Fair Labor Standards Act Minimum Wage and Overtime Payments, Federal Insurance Contribution Act, Social Security Act, Federal Unemployment Tax Act, and the provisions of the Internal Revenue Code, Missouri Revenue and Taxation Laws, and Missouri's Worker Compensation Laws and Unemployment Insurance Laws. Contractor will retain sole and absolute discretion in the judgment of the manner and means of carrying out its activities and responsibilities.

17. Insurance. Contractor shall secure and maintain at its own cost and expense, throughout the duration of this Agreement, insurance of such types, including but not limited to Worker's Compensation Insurance, Commercial General Liability Insurance, and Automobile Liability Insurance, and in such amounts as may be necessary to protect it against all hazards or risks of loss as hereunder specified or which may arise out of the performance of this Agreement, with limits of liability not less than the sovereign immunity limits for Missouri public entities calculated by the Missouri Department of Insurance as of January 1 each calendar year and published annually in the Missouri Register pursuant to Section 537.610, RSMo. (See, <http://insurance.mo.gov/industry/sovimunity.php>). The foregoing shall not be construed as a waiver of sovereign immunity.

18. Intellectual Property. Contractor shall provide City with copies of all documents pertinent to the Scope of Work which shall include, without limitation, reports, correspondence, meeting minutes, and originals of all deliverables. City shall own all right, title and interest, including without limitations, all copyrights and intellectual property rights, to all documents and Work Product of Contractor created in performance of or relating to this Agreement. Contractor agrees to take all steps reasonably requested by City to evidence, maintain, and defend City's ownership rights in the Work Product.

19. Liquidated Damages. Time is of the essence of this Agreement. If Contractor shall neglect, fail, or refuse to complete its work by the date specified, then Contractor does hereby agree, as part of the consideration for the award of this Agreement, to pay to City, as liquidated damages and not as penalty, the sum of \$500.00 per day for each calendar day beyond the specified completion date the Contractor fails to complete the work. The Parties agree to this arrangement due to the impracticability and difficulty in ascertaining the true value of the damages the City will incur as a result of such delay, and said sum per day is agreed to be a reasonable estimate of the amount of such damages which City will sustain. The Parties further agree that such liquidated damages shall be deducted from any amounts owing to Contractor, and if such amounts owing are insufficient, the Contractor shall pay to City the amount of the difference.

20. Non-Appropriation. Intentionally omitted.

21. Non-Discrimination. Contractor agrees in the performance of this Agreement not to discriminate on the ground or because of race, creed, color, national origin or ancestry, sex, religion, handicap, age, status as a protected veteran or status as a qualified individual with a disability, or political opinion or affiliation, against any employee of Contractor or applicant for employment and shall include a similar provision in all subcontracts let or awarded hereunder.

22. Notices. All notices required or permitted hereinunder and required to be in writing may be given by first class mail addressed to City and Contractor at the addresses as follows:

City of Neosho
ATTN: David Kennedy
203 E. Main St.
Neosho, MO 64850

Guarantee Roofing, Inc.
ATTN: David McLean
4570 N. Blackcat Road
Joplin, MO 64801

The date of delivery of any notice given by mail shall be the date falling on the second full day after the day of its mailing.

23. Payment for Labor and Materials. Contractor agrees and binds itself to pay for all labor done, and for all the materials used in the construction of the work to be completed pursuant to this contract.

24. Payment Bond. Contractor shall furnish a Payment Bond with surety approved by City and on forms approved by City in the amount of Three Hundred Sixty-Six Thousand Forty and 00/100 (\$366,040.00) – the full amount of this contract – conditioned upon payment of all labor and material suppliers. It is further mutually agreed between the parties hereto that if at any time after the execution of this agreement and the surety bond(s) hereto attached for its faithful payment of labor and material suppliers, City shall deem the surety or sureties upon such bond to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the payment of the work, Contractor shall, at its expense, within five (5) days after the receipt of notice from City to do so, furnish an additional bond, in such form and amount, and with such surety as shall be satisfactory to City. In such event no further payment to Contractor shall be deemed to be due under this contract until such new or additional security for the payment of labor and material

suppliers shall be furnished in a manner and form satisfactory to City. The corporate surety on any payment bond must be licensed by the State of Missouri and if the required bond exceeds \$25,000.00 must be listed in United States Treasury Circular 570.

25. Performance Bond. Contractor shall furnish a Performance Bond with surety approved by City and on forms approved by City in the amount of Three Hundred Sixty-Six Thousand Forty and 00/100 (\$366,040.00) – the full amount of this contract – conditioned upon performance of the Scope of Work. It is further mutually agreed between the parties hereto that if at any time after the execution of this agreement and the surety bond(s) hereto attached for its faithful performance of the Scope of Work, City shall deem the surety or sureties upon such bond to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the performance of the work, Contractor shall, at its expense, within five (5) days after the receipt of notice from City to do so, furnish an additional bond, in such form and amount, and with such surety as shall be satisfactory to City. In such event no further payment to Contractor shall be deemed to be due under this contract until such new or additional security for the performance of the Scope of Work shall be furnished in a manner and form satisfactory to City. The corporate surety on any payment bond must be licensed by the State of Missouri and if the required bond exceeds \$25,000.00 must be listed in United States Treasury Circular 570.

26. Prevailing Wages. It is agreed that all labor utilized in the construction of the aforementioned improvements shall be paid a wage of no less than the “prevailing hourly rate of wages” for work of a similar character in this locality, as established and amended at any time by the Department of Labor and Industrial Relations of the State of Missouri.

27. Records and Audits. The Contractor shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the City to assure proper accounting for all project funds. These records will be made available for audit purposes to the City or any authorized representative, and will be retained for three years after the expiration of this Contract.

28. Representations. The signatories hereto represent and warrant that they have read this Agreement, that they are fully authorized in the capacities shown, that they understand the terms of this Agreement, and that they are executing the same voluntarily and solely for the consideration described herein.

29. Right to Proceed. In the event this contract is terminated, then the City may take over the work and prosecute the same to completion, by contract or otherwise, and Contractor and its sureties shall be liable to the City for any costs over the amount of this contract thereby occasioned by the City. In any such case, the City may take possession of, and utilize in completing the work, such materials, appliances and structures as may be on the work site and are necessary for completion of the work. The foregoing provisions are in addition to, and not in limitation of, the rights of the City under any other provisions of the contract, city ordinances, and state and federal laws.

30. Safety Training. Contractor shall require all on-site employees to complete a ten-

hour Occupational Safety and Health Administration (OSHA) construction safety program provided by Contractor which includes a course in construction safety and health approved by OSHA or a similar program approved by MoDOLIR which is at least as stringent as an approved OSHA program, as required under Subsection 292.675.2 RSMo. All employees are required to complete the program within sixty days of beginning work under this Agreement. Contractor shall also require all subcontractors under Contractor to provide the ten-hour training program required under Subsection 292.675.2 RSMo. to such subcontractors' on-site employees. On-site employees who have previously completed such ten-hour training program must hold documentation of prior completion of the program.

31. Severability. If any of the provisions of this Agreement shall be construed to be invalid or illegal, the legality or validity of the other provisions of this Agreement shall not be affected thereby. Any illegal or invalid provision of this Agreement shall be severable and any other provisions shall remain in full force and effect.

32. Subcontractors. Contractor shall be as fully responsible to City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as Contractor is for the acts and omissions of persons it directly employs. Contractor shall cause appropriate provisions to be inserted in all subcontracts relating to this work, to bind all subcontractors to Contractor by all the terms herein set forth, and insofar as applicable to the work of subcontractors and to give Contractor the same power regarding termination of any subcontract as City may exercise over Contractor under any provisions of this Agreement. Nothing contained in this Agreement shall create any contractual relation between the subcontractor and City or between any subcontractors.

33. Subsurface Conditions. Contractor agrees that information contained in the published reports and public actions of the Missouri Division of Geology and Land Survey shall be conclusive and binding upon the Contractor as to what subsurface conditions at the job site are reasonably anticipated or reasonably foreseeable. Contractor acknowledges and agrees that it shall not be entitled to any adjustment in the Contract Sum or Contract Times for any concealed condition of any nature, including but not limited to unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, in addition to the information contained in the published reports and public actions of the Missouri Division of Geology and Land Survey. Contractor recognizes that it has assumed the risks of concealed conditions and is being compensated for assuming these risks.

34. Termination. City reserves the right to terminate this contract by giving at least five (5) days prior written notice to Contractor, without prejudice to any other rights or remedies of City, should Contractor be adjudged bankrupt, or if Contractor should make a general assignment for the benefit of its creditors, or if a receiver should be appointed for Contractor or for any of its property, or if Contractor should persistently or repeatedly fail or refuse to supply enough properly skilled workmen or proper material, or if Contractor should fail or refuse to make prompt payment to any person supplying labor or materials for the work under the contract, or persistently disregard instructions of City or fail to observe or perform any provisions of the contract. City may terminate this Agreement, without cause, by giving Contractor thirty (30) days'

written notice of the same.

35. Unauthorized Aliens. That pursuant to Missouri Revised Statute Sections 285.525 through 285.555, if this contract exceeds the amount of \$5,000.00 and Contractor is associated with a business entity, Contractor shall provide an acceptable notarized affidavit stating that the associated business entity is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the contracted services, and that said business entity does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. Additionally, Contractor must provide documentation for said business entity evidencing current enrollment in a federal work authorization program.

36. Waiver. Waiver of any provision of this Agreement or breach of this Agreement shall not thereafter be deemed to be a consent by the waiving party to any further waiver, modification or breach by the other party, whether new or continuing, of the same or any other covenant, condition or provision of this Agreement. Failure by one of the parties to this Agreement to assert its rights for any breach of this Agreement shall not be deemed a waiver of such rights.

37. Warranty. In addition to any other warranties in this Agreement, including the Manufacturer's 20 year No Dollar Limit Warranty, Contractor warrants that work performed under this Agreement conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 2 years from the date of final acceptance of the work. Contractor shall remedy at Contractor's expense any failure to conform or any defect. In addition, Contractor shall remedy at Contractor's expense any damage to City's real or personal property, when that damage is the result of: (1) Contractor's failure to conform to contract requirements; or (2) any defect of equipment, material, workmanship, or design furnished by Contractor. Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. Contractor's warranty with respect to work repaired or replaced will run for 2 years from the date of repair or replacement. City will notify Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. If Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, City shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at Contractor's expense. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, Contractor shall: (1) obtain all warranties that would be given in normal commercial practice; (2) require all warranties to be executed, in writing, for the benefit of City, as directed by City; and (3) enforce all warranties for the benefit of City. This warranty shall not limit City's rights with respect to latent defects, gross mistakes, or fraud.

[Remainder of page intentionally left blank – signature page follows]

IN WITNESS WHEREOF, the Parties have caused these presents to be executed in duplicate as of the day and year first above written.

CITY OF NEOSHO, MISSOURI

GUARANTEE ROOFING, INC.

Richard Davidson, Mayor

David McLean, President

ATTEST:

Cheyenne Wright, City Clerk

BID FORM

Description: (To be completed by bidding party)

Remove and replace 400 Sq. ft. of wet insulation

Vent existing roof. Mechanically attach 1/2 inch secure rock to existing roof.

Fully adhere 60 mil. TPO to entire roof. Remove and replace all flashings at penetrations.

Remove all trash from job site.

Install entire roof to achieve a 20 year NO Dollar Warranty.

Provide 2 year Contractor workmanship warranty.

Price(s) for unit(s) meeting enclosed specifications: Civic Center/Auditorium - \$168,410.00

City Hall - \$197,630.00

F.O.B. Neosho, MO

Total -

\$366,040.00

Projected Shipping Date: Depending on availability of Material

After delivery - payment made on third Tuesday of month delivered

I certify that this bid on stated piece(s) of equipment meets or exceeds the bid specifications (unless otherwise noted).

COMPANY: Guarantee Roofing, Incorporated

ADDRESS: 4570 N. Blackcat Road Joplin, MO 64801

PHONE: 417-437-7577

EMAIL: dmclean.gri@gmail.com

BY:



David McLean, President

REQUESTED COUNCIL MEETING DATE: July 6, 2023

ITEM: Resolution Bill No. 2023-05: Amend City Purchasing Policy - Vendor List

ORIGINATING DEPARTMENT: Fire Department

ATTACHMENT:

1. Resolution Bill No. 2023-05 Adopted Purchasing Policy FY2023 - second amendment
 2. Adopted Purchasing Policy FY2023 - second amendment
-

PURPOSE:

To add Houston-Galverston Area Council to the Purchasing Policy

BACKGROUND:

Houston-Galveston Area Purchasing Council (HGAC Buy) is a government procurement agency that collects contracts for non-profits and government agencies. It is very similar to Sourcewell that we use currently in other departments in the city. HGAC is unique to the fire department because it collects Fire Apparatus contracts. This will allow us to look at contracts from various manufacturers and guarantee we are getting the best price. I am requesting HGACBuy be placed on the Purchasing policy list of approved cooperative procurement programs.

RECOMMENDATION:

Staff recommends approval of HGACBuy to be placed on the cooperative procurement programs list in the City of Neosho Purchasing Policy.

Resolution Bill No. 2023-05

A RESOLUTION adopting amended purchasing policies and procedures for the fiscal year beginning October 1, 2022 and ending September 30, 2023.

WHEREAS, it is in the best interest of the City to adopt policies and procedures relating to its purchase of goods and services; and

WHEREAS, the City's procurement of goods and services should be in a manner consistent and compliant with the provisions of federal law, state law, the City Charter, the City Code, and with generally accepted accounting principles; and

WHEREAS, such policies and procedures should purchase goods and services at the best possible quality level for the least expenditure of the public's funds; and

WHEREAS, the City adopted Resolution No. 234-2022 concerning purchasing policies and procedures for the fiscal year beginning October 1, 2022 and ending September 30, 2023 on September 20, 2022; and

WHEREAS, the City adopted Resolution No. 235-2022 concerning amended purchasing policies and procedures for the fiscal year beginning October 1, 2022 and ending September 30, 2023 on October 18, 2022; and

WHEREAS, the City desires to amend said purchasing policies and procedures for the purpose of authorizing participation in additional cooperative procurement programs.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, AS FOLLOWS:

Section 1: The City of Neosho hereby adopts the attached Purchasing Policy and Procedures. This policy goes into effect July 6, 2023 through September 30, 2023 and is to be reviewed every year in September along with the budget.

Section 2: These policies and procedures are subject to change upon approval by the City Council.

Section 3: This resolution shall be in full force upon July 6, 2023, and all other Resolutions in conflict herewith are repealed.

PASSED BY THE COUNCIL OF THE CITY OF NEOSHO, MISSOURI, this _____ day of July, 2023, by a vote of _____.

Richard Davidson, Mayor

ATTEST:

Cheyenne Wright, City Clerk

Resolution Bill No. 2023-05

APPROVED AS TO FORM:

Jordan L. Paul, City Attorney

City of Neosho

Purchasing Policy and Procedures

I. Introduction

This document is intended to serve as a guide to the purchasing procedures to be used by departments of the City of Neosho. The City Manager, by ordinance, is the City's Purchasing Agent and is responsible for the interpretation and enforcement of this policy per Section 120.070.

II. Objectives

The primary objective of the Purchasing Policy is to procure materials, equipment and services at the best possible quality level for the least expenditure of the public's funds. On that premise, this purchasing manual strives to achieve the following:

1. To administer consistent and fair procurement policies at the least possible inconvenience to the City's many departments, while still functioning in the best interest of the City of Neosho.
2. To assist the City's management in reaching sound, cost-effective procurement decisions.
3. To promote goodwill and credibility among the many vendors with whom the City does business.
4. To promote the principles of competitive purchasing and the best quality for the fewest dollars.

III. Policies

1. Department Purchasing Agent

Each department within the City of Neosho shall have a designated purchasing agent to be responsible for carrying out the requirements of this policy.

2. Vendor Relations

Salesmen can be an excellent source of information, but if given free reign can squander valuable supervisory time as well as solicit sale of items that may not be needed. For this reason, salesmen should be directed to leave an informational card which will be kept on file and incorporated into the City's vendor list. Each company on this list may be issued a "request for bid" should that company's goods or services be needed. All vendors wishing to do business with the City of Neosho will be required to fill out a Vendor/Bid List sheet and a Form W-9 "Request for Taxpayer Identification Number and Certification".

In the event of default, false representation or unethical practices by any vendor, it shall be

the prerogative of the City to disqualify such vendor from receiving City business.

3. Conflict of Interest

Sec. 2-220 "Rebates, etc." of the City of Neosho codes specifically states that "the City Purchasing Agent and every office and employee of the City are expressly prohibited from accepting directly or indirectly, from any person to which any purchase order or contract is, or might be awarded, any rebate, gift, money or anything of value whatsoever, except where given for the use and benefit of the City".

4. Volume Purchase

The City of Neosho will, whenever possible, purchase items in volume to take advantage of volume discounts and consolidate purchasing of like and related items to accomplish economies of scale.

IV. Procedures

1. Buying Guideline - Dollar Restrictions

By ordinance, the following dollar guidelines for purchases have been established:

- a. Employees making authorized purchases of \$10.00 or less where cash is required, can immediately be reimbursed upon presentation of the sales receipt to the City Accounts Payable department.
- b. Purchase of up to \$749.99 may be made by an authorized department employee, by signature only. A legible, completed ticket must be signed and turned in to the Department Purchasing Office as soon as possible. Each Department will be responsible for setting their own policies. Purchases of up to \$749.99 that are ordered and not received, or purchases made at other locations other than open vendor accounts will require a purchase order to be turned in to the Finance Department within (5) working days.
- c. Open Accounts - the City will designate vendors in Neosho which the departments may charge routine purchases. Monthly, the Department's Purchasing Office shall complete a purchase order for all items purchased from the vendors and turn it, along with invoices or receipts from the vendors, to the Finance Department within (5) working days from the end of the month. There will be a \$1,500.00 a month limit per vendor designated as an open account vendor. Any exception will have to be pre-approved by the City Manager.
- d. Purchases of \$750.00 to \$1,499.99 must be accompanied by three phone, written, catalog or faxed quotes, documentation as to why these requirements cannot be met. Purchases made within this dollar range will require a purchase order to be turned in to the Finance Department within (5) working days.
- e. All purchases for goods or services of \$1,500.00 up to \$9,999.99 must be accompanied by three written, catalog or faxed quotes, or documentation as to why these requirements cannot be met and shall have the approval of the City Manager. A requisition will be submitted for these purchases.

f. Any purchases \$10,000.00 and higher for any capital items shall be made only upon the authorization of the City Council. A requisition must be submitted for these purchases and require the sealed bid purchasing procedure.

2. Emergency Purchases

An emergency purchase, for the purposes of this manual, will be any supplies or service whose immediate procurement is essential to the preservation of life, health, and welfare of the citizens of Neosho. Emergency purchases over \$750.00 must be approved by the City Manager or their designee

Documentation for an emergency purchase should be received the workday following the purchase. Documentation will be a requisition (as necessary according to dollar amount of purchase) clearly marked "Emergency Purchase", the delivery ticket or invoice, and a brief written justification for the emergency purchase.

When required by vendor, a confirming purchase order can be written for this type of transaction.

3. Contract Items

The City of Neosho participates in the following cooperative procurement programs:

- General Services Administration
- State of Missouri
- NASPO ValuePoint (formerly WSCA-NASPO)
- MMCAP Infuse
- Sourcewell (formerly NJPA)
- Kansas City Regional Purchasing Cooperative
- Houston-Galveston Area Council

Certain items bid for stated periods of time will be considered under contract. If the City has contracted with any vendor under these circumstances, the items involved shall be purchased only from the company to which the award was made. Exceptions will be made only with the express permission of the City Manager.

4. Bidding Process

Bidding is accomplished by one of three methods:

- o Formal Sealed Bid
- o Informal Bid
- o Request for Proposal (RFP)

a. Formal, sealed bidding is required for purchases \$10,000.00 and higher. Except under rare occasions, no fewer than three (3) vendors will be contacted. Bids are opened publicly at the hour and place designated in the specification packet. Evaluations are conducted and an award is made by the Department Heads with the concurrence of the City Manager.

b. Informal quotes are required when the dollar amount falls below \$1,500.00 and should be

used when the dollar amount falls between \$750.00 and \$1,499.99. Except under rare occasions, all informal quotes are solicited from no fewer than three (3) sources. A list of vendors and prices shall be attached to the purchase order.

c. Requests for proposals, as specifically addressed herein, pertains to proposals for professional services and certain other instance when the City's interest would be better served through the proposal/negotiation process.

It is the policy of the City to purchase professional services based on an evaluation and comparison of demonstrated related expertise and experience; current experience for similar municipal governments; review of appropriate references; experience of the specific persons to be assigned to the project; and capability of providing technical assistance that may be required for a particular project. Fees will be considered along with professional experience and capability.

The qualification of the firms submitting proposals will be reviewed by the City and generally, one or more firms will then be invited to make formal presentations.

Proposals submitted for professional services shall be evaluated based upon criteria outlined in the RFP. The City may request the formal presentation of proposals from the highest-ranking firms based upon the outcome of the evaluation of the written proposals. The City reserves the right to reject any and all proposals, to waive any irregularities, to request any additional information on any relevant item, to contact former clients of the firm, and to select the firm, which in the opinion of the City, is best qualified.

Qualified firms offering various professional services are invited to keep on file with the Purchasing Agent, a company profile describing qualifications and experience in their given field. The Purchasing Agent will maintain a roster of these firms to be made available to any department seeking a particular professional service.

Software purchases will be based on proposals, demonstrations to meet required results, as well as price. Wherever possible, software should be standardized city-wide to utilize training and to maintain continuity throughout the organization. Availability and quality of training will be assessed also.

5. Bidder Lists

The Department's Purchasing Officer will compile and maintain a bidders list. Those vendors interested in bidding for goods and services for use by the City of Neosho shall inform the Purchasing Agent, in writing, and include the following information:

- o Name, address and phone number
- o Years in business
- o Names of those who will be authorized to sign bids
- o Type of business (manufacturer, distributor etc.)
- o Type of goods or services on which the company would like to bid

Department and division heads are also requested to submit pertinent information on potential bidders to the Purchasing Agent, when submitting a sealed bid requisition.

6. Bidder Evaluation

The City of Neosho awards bids in the basis of "lowest and best". After bids have been opened and tabulated, the Department Head and/or the Purchasing Agent will ascertain if all requirements for bidding have been met, evaluate the product or service based on the specification or proposal request, determine the lowest and best bid received and make recommendations to the City Manager and/or City Council, as appropriate.

If the City Manager and/or City Council concurs with the recommendation (in the case of purchases amounting to \$1,500.00 or more) of the Department Head, the purchase order will be issued. If not, the Department Head should submit an alternative, i.e. a request to accept another bid, instructions to void the entire bid, etc.

7. Specifications

When dollar restrictions require goods or services to be bid formally, it shall be the responsibility of the user department to submit a set of basic specification outlining their requirements.

Although specification should not be written around one manufacturer's product, to the exclusion of all others, suggestions may be made by the user division if experience with one product has been more favorable than that of another. A manufacturer's name accompanied by terminology "approved equal" normally should be used only as a point of reference to indicate quality and level of performance desired. If standardization of equipment is required, a specific brand name may be called for in certain circumstances.

8. Requisitions

Purchase transactions \$1,500.00 and higher will be initiated in each division using the purchase requisition. Requisitions should be completed in the following manner:

- o Item Description - give specifics. Include any model, item, or part number, and indicate if alternative goods, services, or plans may be used.
- o Quantity
- o Date delivery required
- o Budgeted line-item to which goods or services will be charged.
- o Department making request
- o Department head's signature
- o Date of request
- o Date received by purchasing

A confirming requisition should be used only when a purchase cannot wait for routine processing. A Capital Outlay item not listed in the adopted budget or a change in the item to be purchased must have the City Manager's approval prior to the purchasing process.

9. Purchase Orders

The purchase order constitutes a contract between the City of Neosho and a vendor to deliver only those goods or services stated in the purchase order. As a legal contract, the purchase order gives the vendor authority to ship to and to invoice the City for the items listed on that order. The purchase order must contain a precise and clear description of the items to be delivered, the requested shipping date, the place of delivery, and correct pricing information. The following information is necessary to prepare a purchase:

- o Name of Vendor

- o "Deliver to" address
- o Date of order
- o Requested delivery date
- o Account number
- o Unit
- o Complete descriptions of the item(s)
- o Quantity
- o Price per unit
- o Total price
- o Confirmation, if applicable
- o Signature of department head and City Manager

Purchase orders will be used by Departments for purchases over \$750.00.

10. Delivery and Acceptance of Shipment

When an item is delivered, the following procedure should be used prior to placing the item into service:

- a. All items, when feasible, should be delivered to the respective department.
- b. A representative from the receiving department shall inspect and review the specifications for compliance with the order.
- c. If the item is a vehicle, the Department Head of the receiving department shall immediately notify the insurance carrier of any additions or deletions to be made to the City's insurance coverage. The Department Head will also need to complete a Fixed Asset addition form and forward it to the Finance Department.
- d. If an item does not comply with specifications or is damaged, the Department Head shall refuse acceptance of that item and shall notify the Purchasing Agent of the refusal.

11. Vendor Rotation

In order to better serve the City's supply needs and to better distribute the amount of business the City does with any one vendor, it may be advantageous to develop a list consisting of vendors pertinent to the Department's needs and to rotate the vendor awarded the bid for the ordered item, provided that said vendor's bid is within 2.5% of the actual low bid. A procedure to control the rotation shall be implemented and controlled but the Purchasing Agent so designated by the City Manager.

12. Local Vendor Preference

Local businesses that can provide the product or service being bid are placed on a mailing list. When an item is scheduled for bid, a copy of the invitation to bid, specifications and bid form are mailed to each vendor on the list. When bids are received from both local businesses and non-local businesses and the lowest bid meeting specifications is from a non-local business, the local business may be given preference in the award of the contract providing the bid from the local business meets all the specifications and does not exceed the lowest bid by more than 3% or \$2,500.00, whichever is less. This local business preference is to give

consideration for after- purchase accessibility and prompt service. “Local business” and “local vendor” mean a business entity or person with a physical place of business located within a twenty-five-mile radius of Neosho City Hall for one year or more.

13. Recycled Materials

When and where feasible, the City of Neosho shall give consideration in its bidding and purchasing procedures for products manufactured using post-consumer recovered materials. The quantity of recovered materials used in the final product shall comply with the percentages set forth in Federal and State guidelines. The quality of the product shall be comparable with products made from virgin materials. The City may give preference to products that contain recovered materials, providing the bid or purchase price does not exceed the lowest price by more than 3% or \$2,500.00, whichever is less.

14. Authorized Employees

Each department shall have on file an up-to-date list of the following:

- o Individuals within each department authorized to sign purchase orders and requisitions as backups for Department Heads, should the Department Head be unavailable.
- o All employees authorized to purchase and sign tickets for the small dollar items and charged items.

The list should indicate any dollar limitation imposed and shall not contradict the dollar guidelines set forth in this manual. The list of employees authorized to purchase will be made available to the Finance and Accounts Payable Departments. In order to protect the best interest of the City, to maintain a level of consistency as well as to avoid confusion with City vendors, only authorized individuals should be sent to receive and sign for merchandise. Purchases bearing unauthorized signatures will be the financial responsibility of the person making the purchase.

15. Surplus Material/Auction

By ordinance, all supplies, material, and equipment disposed of by sale or otherwise shall be done so under the direction of the City Manager.

16. Budgetary Controls

Due to the changes in the time requirements to turn in information to the Finance Department, the Finance Department's Budget Reports will not be issued (except at month-end close) since the information would not be timely enough to be a management tool. For Budget Management, each Department Head shall be responsible for maintaining a budget control ledger showing the adopted budget, the current amount expended and the remaining balance.

17. Contract Change Orders

Any change order associated with a material change in the scope of work must be approved by the City Council. Any change order(s) resulting in a cumulative total increase equal to or greater

than \$10,000 or 5 percent of the initial contract price, whichever is greater, must be approved by the City Council. Any change order not associated with a material change in the scope of work, or any change order(s) resulting in a cumulative total increase less than the foregoing amounts, may be approved by the City Manager.

18. Settlement of Claims

The City Manager is authorized to settle any claims for which (1) the City is the claimant, (2) the City's damages are less than \$10,000, and (3) the settlement makes the City whole and restores the City to the position it would have been in had the wrong not been committed.