



AUBURN HILLS MEETING SCHEDULE

248-370-9402 | WWW.AUBURNHILLS.ORG

MARCH 2024

DAY	TITLE	TIME	LOCATION
4	City Council Workshop	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
4	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
5	Board of Review Organizational Meeting	9:00 AM	Council Conference Room 1827 N. Squirrel Road
5	Public Safety Advisory Committee	5:00 PM	Public Safety Building 1899 N. Squirrel Road
6	Planning Commission	7:00 PM	Council Conference Room 1827 N. Squirrel Road
11	Board of Review	9:00 AM	Administrative Conference Room 1827 N. Squirrel Road
11	Downtown Development Authority	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
12	Library Board	7:00 PM	Auburn Hills Public Library 3400 Seyburn Drive
12	Board of Review	2:00 PM	Administrative Conference Room 1827 N. Squirrel Road
12	Tax Increment Finance Authority	4:00 PM	Council Chamber 1827 N. Squirrel Road
13	Pension Board/Retiree Health Care	3:00 PM	Administrative Conference Room 1827 N. Squirrel Road
14	Zoning Board of Appeals	7:00 PM	CANCELED
18	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road

NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements. PLEASE BE ADVISED, DUE TO A LACK OF AGENDA ITEMS, SOME MEETINGS MAY BE CANCELED.



AUBURN HILLS MEETING SCHEDULE

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APRIL 2024

DAY	TITLE	TIME	LOCATION
1	City Council Workshop	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
1	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
3	Planning Commission	7:00 PM	Council Chamber 1827 N. Squirrel Road
8	Library Board	7:00 PM	Auburn Hills Public Library 3400 Seyburn Drive
9	Tax Increment Finance Authority	4:00 PM	Administrative Conference Room 1827 N. Squirrel Road
11	Zoning Board of Appeals	7:00 PM	Council Chamber 1827 N. Squirrel Road
15	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
16	Brownfield Redevelopment Authority	6:00 PM	Administrative Conference Room 1827 N. Squirrel Road

NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements. PLEASE BE ADVISED, DUE TO A LACK OF AGENDA ITEMS, SOME MEETINGS MAY BE CANCELED.



CITY OF AUBURN HILLS
MONDAY, MARCH 4, 2024
Workshop Session ♦ 5:30 PM

Admin Conference Room, 1827 N. Squirrel Road, Auburn Hills MI

Regular City Council Meeting ♦ 7:00 PM

Council Chamber, 1827 N. Squirrel Road, Auburn Hills MI

248-370-9402 ♦ www.auburnhills.org

Workshop Topic: Local Transportation Needs

1. MEETING CALLED TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL OF COUNCIL

4. APPROVAL OF MINUTES

4a. City Council Special Meeting Minutes, February 15, 2024

4b. City Council Workshop Minutes, February 19, 2024.

4c. City Council Regular Meeting Minutes, February 19, 2024.

5. APPOINTMENTS AND PRESENTATIONS

6. PUBLIC COMMENT

7. CONSENT AGENDA

All items listed are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member so requests, in which event the item will be removed from the Consent Agenda and considered in its normal sequence on the agenda.

7a. Board and Commission Minutes

7a1. DDA & TIFA Joint Meeting, February 13, 2024

7a2. Tax Increment Finance Authority, February 13, 2024

7b. Motion – To authorize a change order to the contract with Rich & Associates for professional services for architectural and engineering design.

7c. Motion – To approve the Fieldstone Golf Club Roof Replacements.

7d. Motion – To approve the purchase of four replacement vehicles.

8. UNFINISHED BUSINESS

9. NEW BUSINESS

9a. Motion – To consider the 2024 Liquor License Renewals (2 motions)

10. COMMENTS AND MOTIONS FROM COUNCIL

11. CITY ATTORNEY REPORT

12. CITY MANAGER REPORT

13. ADJOURNMENT

City Council meeting minutes are on file in the City Clerk's Office. NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 or the City Manager's Office at 248.370.9440 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements.



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 4A

CITY COUNCIL



CITY OF AUBURN HILLS SPECIAL CITY COUNCIL MEETING

DRAFT MINUTES

February 15, 2024

CALL TO ORDER &: Mayor Marzolf at 3:00 PM.

PLEDGE OF ALLEGIANCE

LOCATION: Council Chamber, 1827 N. Squirrel Road, Auburn Hills MI

ROLL CALL: Present: Council Members Ferguson, Fletcher, Hawkins, Knight, Marzolf, McDaniel, and Verbeke

Absent: None

Also Present: City Manager Tanghe, Assistant City Manager Skopek, City Attorney Beckerleg, Deputy Clerk Klassen, DPW Director Baldante, Mgr. of Public Utilities Deman, Assistant to the City Manager Hagge

2 Guests

4. PUBLIC COMMENT

Ms. Sylvia Orduno, 131 W. Parkhurst Pl, Detroit, MI shared her desire of City Council to not pass the presented resolution and support the Water Affordability Act.

5. NEW BUSINESS

5a. Motion – To approve the Resolution in opposition to the passage of Michigan House of Representative Bills 5088-5093 and Michigan Senate Bills 549-554.

Mayor Marzolf sought clarification as to who wrote the proposed resolution. Mr. McDaniel stated that he was the author of the proposed resolution, and it was constructed from the information that had been provided regarding the topic.

The Councilmembers in favor of the resolution shared that they think the Water Affordability Act is taking away the responsibility of local governments. It was shared by those in support of the proposed resolution, that they have not had residents come to them saying that they were having trouble paying their water bills however, they have had residents come to them saying not to support the Water Affordability Act. The comment was made that the City of Auburn Hills already helps those that are in need of assistance with their water bills by not shutting off their water and working with individuals with payment plans. It was also stated that the City of Auburn Hills participates in the Great Lakes Water Authority (GLWA) which has a program to aid those that are struggling to pay their water bills and an additional fee should not be added to the water bill. It was pointed

out that there is no guarantee that those in Auburn Hills would qualify for this program yet 95% of the residents will be impacted by the charge. It was shared that while there are some good aspects to the proposed bills, it should be a decision made by the residents.

The Councilmembers in opposition of the proposed resolution shared that they have had conversations with residents that are in favor of the Water Affordability Act. This would be a solution for those that are on fixed incomes, for families that have critical health conditions, and that Councilmembers need to be the voice for those that do not feel they have one. It was shared that the Water Affordability Act would distribute the money to the locate municipalities, so local control would remain. It was also shared that those in need of water should not have to rely on the benevolence of the Staff but rather a permanent solution for thier water concerns.

Moved by Verbeke, Seconded by McDaniel

RESOLVED: To approve the Resolution in opposition to the passage of Michigan House of Representative Bills 5088-5093 and Michigan Senate Bills 549-554.

VOTE: Yes: Knight, McDaniel, Verbeke

No: Ferguson, Fletcher, Hawkins, Marzolf

Resolution No. 24.02.37

Motion Failed (3 - 4)

6. ADJOURNMENT

Moved by Ferguson, Seconded by Hawkins

RESOLVED: To adjourn the meeting.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Knight, Marzolf, McDaniel, Verbeke

No: None

Resolution No. 24.02.38

Motion Carried (7 - 0)

The meeting adjourned at 3:30 PM.

Brain W. Marzolf, Mayor

Kristine Klassen, Deputy Clerk



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 4B

CITY COUNCIL



CITY OF AUBURN HILLS CITY COUNCIL WORKSHOP **DRAFT** MINUTES

FEBRUARY 19, 2024

CALL TO ORDER: Mayor Marzolf at 5:30 PM

LOCATION: Admin Conference Room, City Hall, 1827 N. Squirrel Rd, Auburn Hills, MI 48326
Present: Mayor Marzolf, Council Members Ferguson, Fletcher, Hawkins, McDaniel
Absent: Council Members Knight, Verbeke

Also Present: City Manager Tanghe, Assistant City Manager Skopek, City Attorney Beckerleg, City Clerk Pierce, Chief of Police Gagnon, Community Development Director Cohen, Construction Coordinator Lang, Economic Development Director Carroll, DPW Director Baldante, Deputy Treasurer Vittone, Asst to the City Manager Hagge, Engineer Driesenga
3 Guests

Workshop Topic: Downtown Parking Study Presentation

Mr. Skopek introduced David Rich and David Burr with Rich & Associates. The firm was hired to design the parking structure downtown and to conduct a comprehensive parking study.

Mr. Rich and Mr. Burr presented an analysis of the current and future parking needs in the downtown. This included an inventory of the current parking, a review of the current parking supply and demand, and an assessment of the impact of residential and non-residential units on the parking. Charts were presented showing comparisons of the data collected. It was noted that 44% of parking is public parking.

As a result of the study, the following recommendations were made:

- Implement and enforce a two hour limit for on-street parking from 8:00 AM – 6:00 PM
- Enact an anti-shuffling ordinance
- Implement random parking enforcement with a \$30 fine
- Require a permit for overnight parking in the structure
- In the parking structure: reserve the ground level for customer/visitor parking, allow for customer/visitor parking in residential spaces during the daytime (8:00 AM – 8:00 PM) and require a residential parking permit on the upper levels

Discussion ensued regarding the enforcement of parking restrictions in the downtown area and parking meters versus parking apps in various cities. It was recommended to keep the no parking ordinance from 3:00 AM to 6:00

AM. It was noted that the businesses have been asked to require their employees to park further away to make the closer spaces available for customers.

The meeting adjourned at 6:46 PM.

Brian W. Marzolf, Mayor

Laura M. Pierce, City Clerk



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 4C

CITY COUNCIL



CITY OF AUBURN HILLS REGULAR CITY COUNCIL MEETING

DRAFT MINUTES

FEBRUARY 19, 2024

CALL TO ORDER &: Mayor Marzolf at 7:00 PM.

PLEDGE OF ALLEGIANCE

LOCATION: Council Chamber, 1827 N. Squirrel Road, Auburn Hills MI

ROLL CALL: Present: Council Members Ferguson, Fletcher, Hawkins, Marzolf, and McDaniel

Absent: Council Members Knight and Verbeke

Also Present: City Manager Tanghe, Assistant City Manager Skopek, City Attorney Beckerleg, City Clerk Pierce, Chief of Police Gagnon, Deputy Chief of Police McGraw, Fire Chief Massingill, DPW Director Baldante, Manager of Fleet & Roads Hefner, Manager of Municipal Properties Wisser, Director of Recreation and Senior Services Adcock, Volunteer Services Specialist Evans, Community Development Director Cohen, Construction Coordinator Lang, Assistant to the City Manager Hagge, Engineer Driesenga

32 Guests

A workshop session was held prior to the regular City Council meeting at 5:30 PM. Workshop Topic: Downtown Parking Study Presentation.

4. APPROVAL OF MINUTES

4a. City Council Workshop Minutes, February 5, 2024.

Moved by Hawkins, Seconded by Ferguson.

RESOLVED: To approve the City Council Regular Meeting Minutes of February 5, 2024.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.29

Motion Carried (5 - 0)

4b. City Council Regular Meeting Minutes, February 5, 2024.

Moved by Hawkins, Seconded by Ferguson.

RESOLVED: To approve the City Council Workshop Minutes of February 5, 2024.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.30

Motion Carried (5 - 0)

5. APPOINTMENTS AND PRESENTATIONS

5a. Promotion of Scott Smith to the rank of Detective

Chief Gagnon announced the promotion of Scott Smith to the rank of Detective.

5b. Friends of the Clinton River Trail Presentation

Josh Eichenhorn, Melinda Hill and Fred Phillips were present. Mr. Eichenhorn provided an update on the Clinton River Trail announcing that the Trail will be celebrating 20 years of existence. He thanked the city for its support.

5c. Introduction of Elaine Evans, Volunteer Services Specialist

Ms. Adcock presented Ms. Elaine Evans as the recreation senior services dept staff member. She will be responsible for overseeing the volunteer services for the City.

5d. Fourth Quarter Investment Report Presentation by Brian Green, AndCo Consulting.

Mr. Green of AndCo Consulting presented the Fourth Quarter Investment Report. He shared that the portfolio continues to be diversified across many investment managers and investment strategies and continues to perform well. He shared that AndCo Consulting is being rebranded and will be called Mariner Institutional.

Moved by Fletcher, Seconded by Ferguson.

RESOLVED: To receive and file the AndCo Consulting Fourth Quarter Cash Management Investment Performance Review.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.31

Motion Carried (5 - 0)

6. PUBLIC COMMENT

There was no public comment.

7. CONSENT AGENDA

7a. Board and Commission Minutes

7a1. Tax Increment Finance Authority, January 9, 2024

7a2. Election Commission, February 1, 2024

RESOLVED: To receive and file the Board and Commission Minutes.

7b. Motion – To approve the purchase of a 2024 RAM Promaster 1500 Van.

RESOLVED: To approve the purchase of a RAM Promaster 1500 van for \$50,690.00 from LaFontaine Chrysler Dodge Jeep Ram FIAT of Lansing, MI under the MiDEAL contract #071B7700183.

7c. Motion – To approve a custodial services contract with City Wide Facility Solutions.

RESOLVED: To award a 3-year contract for custodial services to City Wide Facility Solutions, not to exceed the budgeted amounts of \$80,400 from the General Fund and \$28,404 from the Golf Course. Furthermore, approval is subject to the following be added to any final Agreement with the vendor.

“The City of Auburn Hills has the unilateral right to terminate this Agreement for any reason whatsoever, or no reason, with fifteen (15) days’ notice. Such provision shall take precedence over Section 5, Penalty Clause, contained within the Scope of Work document found within the Request for Proposals”.

7d. Motion – To adopt the annual Arbor Day Proclamation.

RESOLVED: To adopt the annual Arbor Day proclamation designating April 26, 2024 as Arbor Day in the City of Auburn Hills. (Appendix A)

7e. Motion – To approve the purchase of 54 Water Meters for the Meter Maintenance Program.

RESOLVED: To approve the purchase of 54 water meters from Everett J Prescott in the amount of \$76,752.

Moved by Hawkins, Seconded by Fletcher.

RESOLVED: To approve the Consent Agenda.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.32

Motion Carried (5 - 0)

8. UNFINISHED BUSINESS

9. NEW BUSINESS

9a. Motion – To adopt Resolution No. 1 to proceed with preparation of plans, specifications and cost estimates for the proposed Superior Court Special Assessment District.

Mr. Hefner presented the resolution to proceed with the proposed Superior Court Special Assessment District. This Special Assessment District is part of the City’s Capital Plan and will include the removal of the existing concrete pavement, removal and replacement of failing curbs and gutters, placement of new aggregate base throughout the road, replacement/extension of drive approaches as needed, paving the road with full depth 9-inch asphalt and drainage structure repairs/relocates. This road has a passer rating of 2 out of 10 and based on the approval of City Council in 2019, the average passer rating of 6 is needed. The estimated cost of this repair is \$940,000.00. Based on the 2016 Special Assessment District Assignment Policy, the City would be responsible for up to 50% of the cost, \$470,000. An informational meeting has been held with the property owners to inform them of their share of the costs for this project.

Moved by Ferguson, Seconded by Hawkins.

RESOLVED: To approve Resolution No. 1 to proceed with preparation of plans, specifications, and cost estimates for proposed Special Assessment District regarding the repair of and improvements to Superior Court. (Appendix B)

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.33

Motion Carried (5 - 0)

10. COMMENTS AND MOTIONS FROM COUNCIL

Mayor Marzolf shared that he attended the Pint Size Picasso Art Show presented by the Parks and Recreation Department. He was encouraged by the great artwork of the young residents and hopes to see this type of programming continue.

11. CITY ATTORNEY REPORT

12. CITY MANAGER REPORT

13. CLOSED SESSION

13a. Motion – To meet in closed session to discuss labor negotiations pursuant to MCL 15.268(1)(c) of the Open Meetings Act.

Moved by Hawkins, Seconded by Ferguson.

RESOLVED: To meet in closed session to discuss labor negotiations pursuant to MCL 15.268(1)(c) of the Open Meetings Act.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.34

Motion Carried (5 - 0)

The meeting recessed to Closed Session at 7:32 PM

The meeting reconvened in Open Session at 8:54 PM.

Moved by McDaniel, Seconded by Hawkins.

RESOLVED: To reopen and proceed in mediation if the union is amenable to that and if not, to proceed with arbitration.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.35

Motion Carried (5 - 0)

14. ADJOURNMENT

Moved by Hawkins, Seconded by Ferguson.

RESOLVED: To adjourn the meeting.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Marzolf, McDaniel

No: None

Resolution No. 24.02.36

Motion Carried (5 - 0)

The meeting adjourned at 8:55 PM.

APPENDIX A

CITY OF AUBURN HILLS

PROCLAMATION

**Designation of Friday, April 26, 2024 as Arbor Day
in The City of Auburn Hills**

WHEREAS, In 1872, J. Sterling Morton proposed to the Nebraska Board of Agriculture that a special day be set aside for the planting of trees; and

WHEREAS, this holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska; and

WHEREAS, Arbor Day is now observed throughout the nation and the world; and

WHEREAS, trees can reduce the erosion of our precious topsoil by wind and water, cut heating and cooling costs, moderate the temperature, clean the air, produce life-giving oxygen, and provide habitat for wildlife; and

WHEREAS, trees are a renewable resource giving us paper, wood for our homes, fuel for our fires and countless other wood products; and

WHEREAS, trees in our city increase property values, enhance the economic vitality of business areas, and beautify our community; and

WHEREAS, trees, wherever they are planted, are a source of joy and spiritual renewal.

NOW THEREFORE, the Auburn Hills City Council does hereby proclaim April 26, 2024 as Arbor Day in the City of Auburn Hills, and urges all citizens to celebrate Arbor Day and to support efforts to protect our trees and woodlands, and

FURTHER, the Auburn Hills City Council urges all citizens to plant trees to gladden the heart and promote the well-being of this and future generations.

Signed this 19th day of February, 2024, at the City of Auburn Hills

Mayor Brian Marzolf

Mayor Pro-Tem Eugene Hawkins, III

Council Member Jack D. Ferguson

Council Member Shawanna Fletcher

Council Member Henry V. Knight

Council Member Kevin McDaniel

Council Member Cheryl Verbeke

APPENDIX B

CITY OF AUBURN HILLS

RESOLUTION TO PROCEED WITH PREPARATION OF PLANS, SPECIFICATIONS AND COST ESTIMATES FOR A PROPOSED SPECIAL ASSESSMENT DISTRICT (RESOLUTION NO. 1)

At a regular meeting of the City Council of the City of Auburn Hills, Oakland County, Michigan, held in the Council Chambers at 1827 N. Squirrel Road, Auburn Hills, Michigan 48326, at 7:00 p.m. on the 19th day of February, 2024, the following resolution was offered by Councilperson _____ and supported by Councilperson _____:

WHEREAS, the City is considering the construction of the proposed improvement described below, and the establishment of a special assessment district to defray the cost of such improvement by special assessment against the benefited properties; and

WHEREAS, the proposed improvement (“the project”) is the repair of and improvements to Superior Court; and

WHEREAS, the City Council desires to proceed to the next step of having cost estimates and project description plans and specifications prepared for the project.

NOW, THEREFORE, it is hereby resolved as follows:

1. The City Manager shall direct OHM, the City’s registered professional engineers, to prepare plans and specifications for the project, a cost estimate for the project, an estimate of the life of the project, description of the proposed special assessment district, the number of installments in which assessments may be paid and other pertinent information that will permit the City Council to determine the estimated costs, extent and necessity of the project, including the portions to be paid by special assessments upon the properties that are specially benefited by the project and the portion, if any, to be paid by the City. Such information once prepared by OHM shall be filed with the City Clerk, along with the City Manager’s recommendations with respect to the project.
2. No contract or expenditure, except for the cost of preparing the necessary profiles, plans, designs, specifications and estimates of costs described above, shall be made for the project, nor shall any improvements be commenced until the City Council affirms the special assessment roll to defray the costs of the project.

AYES:

NAYES:

ABSENT:

ABSTENTIONS:

I, Laura Pierce, the duly qualified and appointed City Clerk of the City of Auburn Hills, Oakland County, Michigan, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted at a regular meeting of the Auburn Hills City Council held on the 19th day of February, 2024, the original of which is on file in my office. In witness whereof, I have hereunto affixed my official signature on this ____ day of _____, 2024.

Laura Pierce
City Clerk



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 7A1

DOWNTOWN DEVELOPMENT AUTHORITY & TAX INCREMENT FINANCE AUTHORITY

“Not Yet Approved”

CITY OF AUBURN HILLS JOINT MEETING OF THE DOWNTOWN DEVELOPMENT AUTHORITY AND THE TAX INCREMENT FINANCE AUTHORITY

February 13, 2024

LOCATION: Public Safety Community Room
1899 North Squirrel Road

DDA: Chairperson Young, Mayor Marzolf, Gliniecki, Wayne, Bachan

TIFA: Chairman Kneffel, Goodhall, Eldredge, Gudmundsen, Fletcher

STAFF: Brandon Skopek, Assistant City Manager; Andrew Hagge, Assistant to the City Manager; Eveonne Roberts, Downtown Engagement Specialist; Steve Cohen, Community Development Director; Devin Lang, Assistant to the Director of Community Development; Tim Juidici, Civil Engineer; Thomas Tanghe, City Manager

GUESTS: David Rich & David Burr, Rich & Associates

1. Call to Order

Mr. Kneffel called the meeting to order at 4:02 p.m.

2. Persons Wishing to be Heard

None.

3. Welcome and introduction by Brandon Skopek, Assistant City Manager, TIFA Executive Director

Mr. Skopek thanked everyone for attending the joint meeting this evening to listen to the downtown parking study conducted by Rich & Associates. Mr. Skopek introduced David Rich and David Burr from Rich & Associates to begin the presentation.

4. Downtown Parking Study Presentation of Results & Recommendations – Rich & Associates

Mr. Burr, Parking Planning Director at Rich & Associates, presented the downtown Auburn Hills parking study to both the DDA and TIFA Boards. The parking study evaluated both the demand and supply of the downtown parking options as it stands today as well as projecting out the demand and supply of downtown parking for each of the following years until 2028. Parking data was gathered during the Summer of 2023. Each of the future projected years takes into account different developments within the downtown coming online. The future, projected years take into account the added parking demand that will exist when developments like The Brunswick, Primary Place, and The Webster are completed, as well as how the parking demand and

supply is impacted by the completion of the parking garage extension, which is scheduled to be complete during the Fall of 2027.

The downtown parking study included information on the specific types of parking that is available in downtown Auburn Hills. For example, the presentation included figures on the private parking supply, the public parking supply, and the residential parking supply. Additionally, the parking study presentation included recommendations from the consultant.

5. Board Member Comments

None.

6. Adjournment

The Joint TIFA & DDA meeting adjourned at 5:18 PM.



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 7A2

TAX INCREMENT FINANCE AUTHORITY

**“Not Yet Approved”
CITY OF AUBURN HILLS
TAX INCREMENT FINANCE AUTHORITY MEETING**

February 13, 2024

CALL TO ORDER: Chairman Kneffel called the meeting to order at 5:25 PM.

ROLL CALL: Present: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
Absent: Waltenspiel, Moniz
Also Present: Brandon Skopek, Assistant City Manager, TIFA Executive Director; Andrew Hagge, Assistant to the City Manager; Thomas Tanghe, City Manager; Steve Cohen, Director of Community Development; Devin Land, Assistant to the Director of Community Development/Construction Coordinator; Tim Wisser, Manager of Municipal Properties; Tim Juidici, OHM Advisors
Guests: 0

LOCATION: Public Safety Community Room, 1899 N. Squirrel Road, Auburn Hills, MI 48326

PERSONS WISHING TO BE HEARD

Mr. Skopek advised the Board of the additional item in new business.

APPROVAL OF MINUTES

A. TIFA Regular Meeting Minutes – January 9, 2024

There was no discussion on the approval of the minutes.

Moved by Mr. Goodhall to approve the TIFA Board of Directors Regular Meeting Minutes from January 9, 2024, as presented.

Seconded by Mr. Gudmundsen

**Yes: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
No: none**

CORRESPONDENCE & PRESENTATIONS

None.

CONSENT AGENDA

A. FY 2024 Adopted Budget and YTD Summary – January 31, 2024

RESOLVED: To receive and file the financial report for the period ending January 31, 2024

Moved by Dr. Eldredge to approve the Consent Agenda.

Seconded by Dr. Fletcher

Yes: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
 No: none

Motion carried

UNFINISHED BUSINESS

None.

NEW BUSINESS

A. Downtown Decorative Streetlight Replacements

Mr. Wisser presented the agenda item related to the purchase of downtown decorative streetlight replacements. Mr. Wisser noted to the Board that there currently is money budgeted for this streetlight replacement project, however Mr. Wisser is asking for an amendment to that budget in the amount of \$40,000. Additionally, Mr. Wisser explained that this replacement project would include the removal of the current intelligent streetlights. The intelligent streetlights include both a light and speaker component. The intelligent streetlights are being removed, as Mr. Wisser explained, because the light component is obsolete and staff believes there is a better option out there to replace the speaker component.

Moved by Mr. Gudmundsen to approve the purchase of 108 Amerlux Decorative light heads from Graybar Electric, Inc. utilizing MiDeal contract pricing in an amount not to exceed \$160,326.48. Furthermore, authorize a budget amendment to increase appropriations in the 2024 TIF-A budget by \$40,000 in support of this purchase.

Seconded by Dr. Eldredge

Yes: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
 No: None

Motion Carried

B. Request to Approve Development Incentive Grant to Hyde Associates, LLC

Mr. Skopek presented the agenda item related to the development incentive grant to Hyde Associates, LLC. Mr. Skopek provided an update to the Board regarding the progress of The Webster development. Furthermore, Mr. Skopek relayed to the Board all the unforeseen challenges that have arose throughout the demolition and construction process, which included, soil conditions requiring enhanced footings and required modifications to neighboring buildings to the east and west at the expense of Hyde Associates. The total unforeseen costs approximate to \$500,000, and Mr. Skopek recommended a development incentive grant in the amount of \$150,000.

Moved by Dr. Fletcher to adopt the attached resolution providing a grant to Hyde Associates, LLC in the amount of \$150,000 and paid in accordance with the provisions contained herein; and authorize the Chairman and Executive Director to sign the Resolution on behalf of the Board.

Seconded by Mr. Gudmundsen

Yes: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
 No: None

Motion Carried

EXECUTIVE DIRECTOR REPORT

None.

BOARD MEMBER COMMENTS

None.

ANNOUNCEMENT OF NEXT MEETING

The next regularly scheduled TIFA Board of Directors meeting is scheduled for Tuesday, March 12, 2024 at 4:00 p.m. in the Administrative Conference Room in City Hall at, 1827 N. Squirrel Road, Auburn Hills, Michigan 48326.

ADJOURNMENT

Moved by Mr. Goodhall to adjourn the TIFA Board meeting.

Seconded by Mr. Gudmundsen

Yes: Kneffel, Goodhall, Gudmundsen, Eldredge, Fletcher
No: None

Motion carried

The TIFA Board of Directors meeting adjourned at 5:44 p.m.

Steve Goodhall
Secretary of the Board

Andrew Hagge
Assistant to the City Manager



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 7B

CITY MANAGER'S OFFICE

To: Mayor and City Council
From: Thomas A. Tanghe, City Manager; Brandon Skopek, Assistant City Manager
Submitted: February 28, 2024
Subject: Motion – To authorize a change order to the contract with Rich & Associates for professional services for architectural and engineering design

INTRODUCTION AND HISTORY

On December 5, 2022, the City Council awarded a contract for professional services for architectural and engineering design to Rich & Associates for the proposed addition to the City's existing parking structure located in downtown Auburn Hills. Since that time, City staff, the City's consulting engineer, and Rich & Associates have collaborated on the architectural and engineering design work necessary for this endeavor. The original contract awarded by the City Council was in the amount of \$234,600. During architectural and engineering design activities, staff approved a series of change orders to the project due to some unforeseen circumstances.

In April 2023, staff administratively approved change order number one to the contract. This change order included additional work to review and analyze property line discrepancies that were discovered during site survey work for the parking structure addition and for the Webster development, which is located north of the project site. That change order was in the amount of \$2,500, bringing the total contract amount to \$237,100.

In February 2024, staff administratively approved change order number two and change order number three. Change order number two included additional work to locate and expose the westerly footings of the existing parking structure. This work was necessary for Rich & Associates to correctly layout the location of the easterly edge of the footings for the proposed parking structure addition. The cost of this change order was in the amount of \$6,500, bringing the total contract amount to \$243,600.

Change order number three included design modifications to the foundations and storage room along the east end of the proposed parking structure addition to accommodate modifications to the DTE primary and secondary service lines in coordination with the adjacent Webster development. The cost of this change order was in the amount of \$11,700, bringing the total contract amount to \$255,300.

Finally, staff has received change order number four for the project, which is before the City Council for approval as this change order would exceed the administrative approval threshold for this project. This change order includes the redesigning of foundations along the proposed public way between the proposed parking structure addition and the Webster development. The redesign will change the current zero lot line foundation along the public way to a less expensive conventional foundation. This change in foundation is necessary for the Webster development team to finalize the location of water and storm sewer lines from the Webster through the parking structure footprint. Further, it is estimated that this design change will save the City between \$75,000 and \$100,000 in construction costs. The cost of this change order is \$24,480, bringing the new contract total to \$279,780.

It is important to note that the funding for the architectural and engineering design services are provided from the American Rescue Plan Act (ARPA) funds the City received in 2021. For reference, in May 2023 the City Council obligated \$2.5 million in ARPA funds toward parking structure addition project.


STAFF RECOMMENDATION

Staff recommends that the City Council approve change order number four to the contract for professional services for architectural and engineering design with Rich & Associates in the amount of \$24,480.

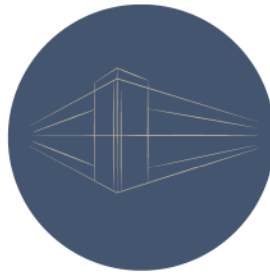
MOTION

Move to authorize change order number four to the contract for professional services for architectural and engineering design with Rich & Associates in the amount of \$24,480. Furthermore, authorize the Finance Department to process the necessary budget amendments to reflect this change.

I CONCUR:

A handwritten signature in dark ink, reading "Thomas A. Tanghe". The signature is written in a cursive style with a large, looped 'T' and a trailing 'h'.

THOMAS A. TANGHE, CITY MANAGER



RICH & ASSOCIATES
PARKING CONSULTANTS

February 14, 2024

Brandon Skopek
Assistant City Manager
City of Auburn Hills
1827 N. Squirrel Road
Auburn Hills, MI 48326

RE: Additional Service Request #4 Primary Street Parking Structure Addition (RA No. 2315)

Dear Brandon:

This letter serves as our request for change in services for additional services related to the Primary Street Parking Structure Addition and the adjacent Webster Development. The additional services include:

Rich & Associates' is to redesign the foundations along the proposed public way between the parking structure addition and the Webster development. The redesign will change the current zero lot line foundations along the public way to less expensive conventional foundations encroaching 2 ½ feet into the public way. The change in foundation needs to be completed in order for the Webster development team to finalize location of water and storm lines from the Webster through the parking structure footprint.

Fee: \$24,480

If this proposal is acceptable, please sign where indicated below. If you have any questions regarding this proposal, please contact me at 248.353.5080.

Sincerely,

RICH & ASSOCIATES, INC.
PARKING CONSULTANTS

David N. Rich
Vice President

Accepted,

CITY OF AUBURN HILLS, MICHIGAN

Signature

Date



CITY OF AUBURN HILLS CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 7C

DEPARTMENT OF PUBLIC WORKS

To: Mayor and City Council
From: Thomas A. Tanghe, City Manager; Tim Wisser, Manager of Municipal Properties
Submitted: February 28, 2024
Subject: Motion – Approve the Fieldstone Golf Club Roof Replacements

INTRODUCTION AND HISTORY

Fieldstone Golf Club has been a premier golf destination for over 25 years. However, after over two decades of use, the roofs on the clubhouse, cart barn, and maintenance facilities are now reaching the end of their useful life. Recent inspections have revealed extensive curling, buckling, and deterioration of shingles indicating the roofs have suffered age-related degradation. Additionally, the roofs have sustained repeated damage and missing shingles from severe weather events. \$430,000 was budgeted for these roof replacements in the 2024 budget.

To complete this roof replacement project, the city will utilize the OMNIA Partners national cooperative purchasing program to procure high-performance Garland brand roofing materials at discounted pricing. The city has previously installed Garland products and has been satisfied with their durability and value. By using a cooperative contract, the city will benefit from competitive national pricing.

On January 12, 2024 an invitation to bid was published to the Michigan Intergovernmental Trade Network (MITN) for the Fieldstone Golf Club roof replacements (**Exhibit 1**). Forty-Four (44) contractors viewed the bid packet and Eight (8) attended the mandatory pre-bid meeting held at the Fieldstone clubhouse on January 8, 2024. Four (4) contractors submitted sealed bids and were opened at the Office of the City Clerk on February 7, 2024 (**Exhibit 2**).

Contractor	Club House Section A/B	Club House Section C	Cart Barn	Maintenance Building	Garland Materials (included in bids)	Total
Schena Roofing	\$182,650	\$118,616	\$74,732	\$117,777	\$159,954	\$493,777
Royal Roofing	\$176,072	\$108,450	\$57,176	\$78,305	\$147,105	\$420,005
JD Candler	\$203,226	\$140,001	\$67,135	\$123,017	\$138,117	\$533,379
Schreiber Roofing	\$216,369	\$147,556	\$80,820	\$104,441	\$165,188	\$549,188

Royal Roofing Co., Inc was the lowest qualified contractor with a bid price of \$272,000 for roofing services and \$147,105.21 for Garland materials (**Exhibit 3**). This brings the total cost to \$420,005.21, which is under the original budget allocated for the 2024 Fieldstone Roof Replacements. In addition, Royal Roofing has proven experience successfully completing roof replacements and installations on other city buildings. Most recently in 2020, Auburn Hills awarded them the competitive contract to replace the City Hall roof. They completed that project on time, within budget, and to the city's satisfaction.

STAFF RECOMMENDATION

Staff recommends purchasing roofing materials from The Garland Company through the OMNIA Partners national cooperative purchasing program in the amount of \$147,105 (GL# 584-753-975.000) based on their contracted national pricing. Staff also recommends the bid award to Royal Roofing Co., Inc not to exceed \$272,000 (584-753-975.000) for the 2024 Fieldstone Roofing projects.

MOTION

Move to purchase materials from The Garland Company for \$147,105 and services from Royal Roofing for \$272,000 to replace roofs at Fieldstone Golf Club.

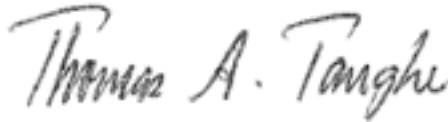
EXHIBITS

Exhibit 1 – ITB-CAH-02-07-2024-001

Exhibit 2 – Bid Tabulation

Exhibit 3 – Royal Roofing BID

I CONCUR:

A handwritten signature in dark ink, reading "Thomas A. Tanghe". The signature is written in a cursive, flowing style.

THOMAS A. TANGHE, CITY MANAGER



ROOF REPLACEMENT SPECIFICATIONS

ROOF PROJECT 2024

**Fieldstone Golf Club
Roof Replacement Project
(BID ID: ITB-CAH-02-07-2024-001)**

Note:

Site Meeting: **January 24th, 2024 @ 10AM (Mandatory)**
Fieldstone Golf Club
1984 Taylor Rd.
Auburn Hills, MI 48326

Quotes Due: **February 7th, 2024 @ 10AM**
Auburn Hills City Clerk
1827 N. Squirrel Rd.
Auburn Hills, MI 48326

Hard-copy Quotations will be accepted by:

Laura Pierce, City Clerk
City of Auburn Hills
1827 N. Squirrel Rd.
Auburn Hills, MI 48326



BID ID: ITB-CAH-02-07-2024-001

BID NAME: Fieldstone Golf Club Roof Replacement Project

ITEM: Commercial Roofing

DUE DATE: February 7th, 2024, 10:00AM EST

The City of Auburn Hills (City) is seeking bids from experienced and qualified contractors to provide commercial roofing services for the preservation and maintenance of public buildings. There will be a mandatory site visit held on **January 24th at 10:00 AM**. The meeting will start at 1984 Taylor Rd. Auburn Hills Michigan, 48346.

Bids will be accepted by the City Clerk until **Wednesday, February 7th, 2024, at 10:00 AM**. Bids will be opened at that time in the front lobby of the City Clerk at 1827 N. Squirrel.

Bids to receive consideration shall be received prior to the specified time of opening as designated on the bid form. **NO LATE BIDS WILL BE ACCEPTED**. Bids are considered received when received and date stamped by the office of the City Clerk.

PREPARATION OF BID

- Unless otherwise approved by the City, all bidders must attend the **MANDATORY PRE-BID MEETING on Wednesday, January 24, 2023 at 10:00 AM**. Bidders will meet at the Fieldstone Golf Club in Auburn Hills, MI.
- Each bidder shall furnish all information required on the bid form. Erasures or other changes must be initialed by the person signing the bid form.
- If there is any doubt as to the meaning of any part of the specifications or other conditions within this invitation, contact either Tim Wisser by email/phone at twisser@auburnhills.org



SUBMISSION OF BIDS

- All bids shall be submitted in sealed envelopes and shall include the following information on the face of the envelope:

Bidder's Name
Bidder's Address
Bid Number
Bid Item (Name of Bid)

Failure to do so may result in a premature opening of or failure to open such proposal. All bids must be hand delivered or mailed to:

Auburn Hills City Clerk's Office
1827 N. Squirrel Road
Auburn Hills, MI 48326

- Bidders are responsible for submitting proposals before stated closing time. Delays in the mail will not be considered. Any proposal received after the stated deadline will be rejected.
- Any bid may be withdrawn by giving written notice to the Clerk's Office before stated closing time. After stated closing time, no bid may be withdrawn or cancelled for a period of one hundred and eighty (180) days after said closing time.

GENERAL INFORMATION

- Pricing shall be stated in units of quantity specified in the Bid Document. In case of discrepancy in computing the amount of the bid, the unit price will govern.
- The proposal evaluation criteria should be viewed as standards, which measure how well a vendor's approach meets the desired requirements and needs of the City.
- All proposals shall be opened publicly at the date and time specified. Each shall be recorded with the name of the proposer. All proposals shall be in accordance with the Purchasing Ordinance and the requirements of this notice in order to be deemed "responsive."
- No proposal will be accepted from any person, firm, or corporation who is in arrears upon any obligation to the City or who otherwise may be deemed irresponsible or unreliable by the City.
- No proposal will be allowed to be withdrawn after it has been deposited with the City of Auburn Hills, except as provided by law. All proposers are held to prices proposed for 180 days or award, whichever comes first, except the successful proposer whose prices shall remain firm through contract expiration.
- Any deviation from the scope of work must be noted in the proposal.
- The Invitation to Bid document together with its addenda, amendments, attachments, and modifications, when executed, becomes the contract or part of the contract between the parties.



- Any proposal submitted which requires a down payment or prepayment of any kind prior to work completion and full acceptance as being in conformance with specifications will not be considered for award.
- All costs incurred in the preparation and presentation of this proposal, in any way whatsoever, shall be wholly absorbed by the prospective firm. All supporting documentation shall become the property of the City of Auburn Hills unless requested otherwise at the time of submission. The confidentiality or disclosure of any information submitted is governed by the Michigan FOIA. The City cannot promise, warrant or guarantee confidentiality nor will the information presented be exempt from disclosure under the FOIA. The City may honor requests for confidentiality only to the extent that FOIA permits.
- The City reserves the right to waive any informality in the proposal received, and to accept any proposal or part thereof, which it shall deem to be most favorable to the interests of the City of Auburn Hills.

Sub-Contractors Insurance Requirements

If approval is granted by the City of Auburn Hills for Contractor to subcontract any or all of this contract to others, then prior to commencing the subcontract, the Contractor shall furnish certificates evidencing the same insurance for the City of Auburn Hills as required in this Invitation to Bid document.

Scope of Services:

The City is seeking bids from qualified contractors to provide commercial roofing services for the restoration and maintenance of municipal buildings to be completed by ***December 1st, 2024***. All roofing products must be from specified material. Some specific products may be determined during the pre-bid meeting. Contractor must follow all product specifications including, but not limited to roofing membranes, adhesives, application guidelines, etc.

Preparation of Proposal:

Qualified companies are invited to deliver proposals in accordance with the attached plans and specifications. Bids must be based on specified materials; no alternatives will be accepted.

Contract Award:

The City of Auburn Hills reserves the right to accept or reject any or all bids and to waive any informalities or irregularities in any proposal or the bid process. The competency and responsibility of all bidders shall be taken into consideration in the award of the contract for this work. If bidders are unknown to the City of Auburn Hills, or their competency questioned, it shall be understood that they will, upon request, file with the City of Auburn Hills reliable data and references for investigation. The City may make such investigation as it deems necessary to determine the ability of the bidder to perform the work. The City reserves the right to award the contract to the bidder offering the best value, but not necessarily to the one submitting the lowest price. City may award fewer than the indicated bid items and may award them in any combination deemed in the best interest of the City.

**Guarantee:**

The successful bidder must guarantee the installation for a period of not less than two years against defects of materials or workmanship. This guarantee shall be dated from the time of acceptance of the work and receipt of final payment. The successful bidder shall replace or correct any work proved to be defective (except when it is clearly shown that the defects are caused by misuse) immediately upon notifications in writing without expense to the City.

Delivery:

The City will work with the contractor to establish a mutually agreeable timetable. **However, all elements of this project must be complete, and all invoices must be received by the City before December 1st, 2024.** Contractor shall, to the extent possible, indicate on the proposal form their anticipated timeframe for the work. Should conditions develop which alter the anticipated timetable, the contractor shall notify the city as soon as possible.

Contractor's Use of Site and Premises:

The contractor shall confine their equipment, apparatus, the storage of materials, and operations of their employees to the limit indicated by law, ordinances, permits, or directions of the City and shall not unnecessarily encumber the premises with their materials or equipment. Contractor shall store their materials, supplies, and equipment in a neat and orderly manner so as not to unduly interfere with the progress of their work, the work of other contractors, or the operation of City business.

Contractor shall remove all rubbish and debris from City property and legally dispose of it. Upon completion of any work, the work areas shall be cleaned of all refuse caused by work performed under this agreement. The contractor shall not allow waste material, or rubbish, caused by their employees to accumulate in or about the premises, but shall have it promptly removed.

The contractor shall take all necessary measures to prevent damage to other areas of buildings, grounds, and utilities adjacent to their work. The contractor shall be responsible for damage to the City's premises that may be caused by their work. Should damage occur as a result of the contractor's work, the contractor is responsible for the repair and/or replacement of the damaged area at their own expense. Otherwise, the City shall repair and/or replace the damaged area and charge the contractor or deduct the amount from the contractor's payment.

All work shall be performed in a professional manner using quality equipment and materials, all of which must be maintained and operated with the highest standards as well as meeting all Michigan Occupational Safety Health Administration (MIOSHA) regulations.

Contractor is advised that their employees must act in a polite and professional manner at all times and refer any questions, complaints, or concerns received from the public to a representative of the City.

The City reserves the right to require the contractor to replace any employee the City deems to have performed in a non-professional, or discourteous manner toward the public or any City representative.

All employees of the awarded firm assigned to this project shall carry proper company identification and be dressed in a company uniform so as to present a professional appearance.

Use of tobacco products while providing services to the City is strongly discouraged.



Minimum Qualifications:

It is the intention of the City to award a contract only to a Contractor who furnishes satisfactory evidence of requisite experience and ability and enough capital and facilities to complete the work successfully and promptly within the timeline established between the parties.

Proposals will be evaluated and ranked. The City reserves the right to reject all proposals to make and award based directly on the proposals or to negotiate further with one or more firms. The City reserves the right to award bid to the contractor with the lowest bid price for each building or the entire lowest lump sum bid, depending on qualifications. The firm selected for the award will be chosen based on the apparent greatest benefit to the City, including but not limited to:

1. Qualifications and Experience.
2. Comparable Projects/References.
3. Cost Proposal.
4. Written Warranties

Bidders will be rejected and deemed non-responsive if they do not meet the following qualifications:

- The bidder must be duly licensed by the appropriate authorities to provide the services required.
- The bidder must provide three business references where similar contracted services have been completed.

Insurance Requirements for Work on/or Within City Property/Facilities:

Liability Insurance

An ACORD certificate of insurance, or its equivalent, shall be furnished to the City of Auburn Hills at 1827 North Squirrel Road, Auburn Hills, Michigan 48326 evidencing insurance in force for the duration of and applicable to this contract with an insurance company acceptable to the City of Auburn Hills with a minimum A.M. BEST rating of “A”, and the following minimum requirements:

- a. General Liability (affording coverage not less than ISO Commercial General Liability coverage form):
 - I. Check mark indicating occurrence as opposed to claims made form
 - II. Limits of Liability:
 - \$2,000,000 each occurrence
 - \$4,000,000 general and products-completed operations aggregates
 - III. Personal Injury \$2,000,000 aggregate



b. Automobile Liability:

- I. Check mark indicating coverage as to any automobile
- II. Certificate must reflect Michigan “No Fault” PIP and PPI statutory coverages are also afforded
- III. Limits of Liability: \$2,000,000 combined single limit

c. Acceptable alternate limits are combinations of primary and excess or umbrella limits to equal not less than those shown in (a) and (b) above.

d. Description section of ACORD form is to read: *It is understood and agreed that the following shall be additional insured: The City of Auburn Hills, including all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Building Authority, and their employees, representatives and volunteers. The coverage shall be primary to the additional insured and not contributing with any other insurance or similar protection available to the additional insured. This shall not apply to the contractor's required worker's compensation/employer's liability.*

e. The Description of Operation section of the Certificate shall also name or describe the project and/or event for which coverage is provided.

Owner's and Contractor's Protective Liability

The Contractor shall procure and maintain during the life of the contract Owner's and Contractor's Protective Liability and Insurance in the name of the City of Auburn Hills, in an amount not less than \$2,000,000 per occurrence, and \$4,000,000 aggregate for injuries, including death, to persons and property damage including loss of use thereof. This insurance shall be in an insurance company acceptable to the City of Auburn Hills.

Workers Compensation

The Contractor shall procure and maintain during the life of the contract, statutory Michigan Workers Compensation and Employers Liability Insurance for all employees employed at or in the vicinity of the Contractor's property, or any property used in connection with the Contractor's operation or in carrying out any work related to this contract.

Michigan Workers Compensation and Employers Liability Insurance shall be procured and maintained with the following limits of liability:

- \$100,000 E.L. each accident
- \$100,000 E.L. each disease – each employee
- \$500,000 E.L. Disease – Policy Limit

This insurance shall comply with all applicable rules and regulations of the State of Michigan and shall be in an insurance company acceptable to the City of Auburn Hills.

Certificate of Insurance

The Contractor agrees that he/she will file all required Certificates of Insurance satisfactory to the City of Auburn Hills with the City of Auburn Hills simultaneously with or prior to the execution of this contract indicating that the insurance required herein has been issued and is in full force and effect.

Further, the Contractor will provide updated certificates annually prior to the policies expiration dates, to indicate that the policies and conditions required hereunder are in full force and effect during the life of this contract.



Hold Harmless/Indemnification Agreement

It is further required that all contractors providing services or performing duties for the City of Auburn Hills and/or its Authorities shall enter into a Hold Harmless/Indemnification Agreement with the City and all other entities, in which Agreement the Contractor and its employees, representatives and agents agrees to release, indemnify, defend, and hold harmless The City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with the Activity.



VENDOR QUESTIONNAIRE

Firm Name: _____

Address: _____

City/State/Zip Code: _____

Telephone Number: _____

E-mail Address: _____

Years in Business: _____

Explain your company's capabilities/knowledge as it relates to commercial roofing applications.

Provide Three (3) References (names, telephone numbers, and email addresses).

- 1) _____

- 2) _____

- 3) _____

Respectfully Submitted By,

Company: Click or tap here to enter text.

Address: Click or tap here to enter text.

Telephone: Click or tap here to enter text.

Fax: Click or tap here to enter text.



Email:Click or tap here to enter text.

_____	_____
Authorized Signature	Title

_____	_____
Printed Name	Date

Approval

_____	_____
Authorized Signature	Title

SECTION 00 10 00 .001 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attached SUMMARY OF WORK, INTENT OF THE SPECIFICATIONS, PROTECTION, HOUSEKEEPING, forms a component part of this section.

1.2 SUMMARY OF WORK: Fieldstone Golf Club – Sections A/B & Section D

- A. Remove existing shingle, metal trim and accessories down to the substrate. Inspection the substrate for saturation and replace in kind at the pricing established on the Bid Form.
- B. Apply seal-adhered R-Mer Seal underlayment to all areas of substrate.
- C. Install 24-gauge accessory trim throughout in color to be chosen by Owner.
- D. Install asphaltic dimensional shingles to dry/clean vapor barrier per specifications.
- E. Primary roofing manufacturer to provide quality assurance inspections per specifications.
- F. Clean up all debris and damage done to grounds, building and roof top (if any).
- G. Contractor to provide 2-year workmanship and material warranty to owner upon completion.

1.3 SUMMARY OF WORK: Fieldstone Golf Club – Section C

- A. Remove the existing rubber membrane down to metal decking and inspect for deficiencies. Identify and repair areas of damaged decking as predetermined pricing.
- B. Mechanically fasten tapered polyisocyanurate insulation (matching thickness) board to deck, ensuring insulation joints are staggered throughout.
- C. Adhere ½" gypsum recovery board per wind up-lift calculations in insulation adhesive.
- D. Sump all drains using tapered insulation ¼:12 to an (8') diameter to promote positive drainage.
- E. Install fiberglass reinforced modified base sheet and SBS modified smooth cap sheet throughout the field of the roof in WeatherKing cold-process bitumen adhesive. Install in a shingle fashion from low to high point of the roof slope to promote positive drainage.
- F. Install fiberglass/polyester modified base sheet and modified mineral cap sheet to all flashings in WeatherKing trowel-grade flashing mastic. Three-course all vertical flashing seams with mastic and reinforcement.
- G. Install new lead at all soil/heat stacks, including targets at the base.
- H. Install reglet-mounted, and surface-mounted counter flashings where detailed.
- I. Through-wall counter-flashings to receive new termination bar and counterflashing to match existing coping color.

- J. Apply specified primer over field modified cap sheet.
- K. Apply cold-process, fibered flood coat at specified rate and embed pea-gravel throughout field.
- L. Apply two coats of aluminized coating to all exposed mineral-surfaced flashings and roof-top penetrations.
- M. Primary roofing manufacturer to provide quality assurance inspections per specifications.
- N. Clean up all debris and damage done to grounds, building and roof top (if any). Charcoal filters to be utilized at intakes the duration of the project where required.
- O. Provide 2-year contractor workmanship warranty.
- P. Manufacturer-direct 30 warranty to be provided to owner upon completion.

1.4 SUMMARY OF WORK: Fieldstone Golf Club – Section E

- A. Remove existing compromised sealant from roof top penetrations and seams.
- B. Install new rubber pipe boots at soil / heat stacks.
- C. Remove and replace damaged, loose or missing fasteners with new stainless steel gasketed fastener of larger diameter.
- D. Roof surface and flashings to be cleaned using power washer (2000 psi) and 10% Simple Green solution. Soft bristle broom to be utilized to remove debris and scale from rooftop surface where necessary.
- E. Prime entire roof surface with Metal Primer at 0.25 gal./ 100 sq. ft. to promote prior adhesion.
- F. Apply sealant dab over all exposed fastener heads prior to coating application.
- G. Round corners of self-adhered seam tape prior to installation. Apply self-adhered reinforcement seam tape to all rake, ridge and eave seams. Roll seam tape into place limiting areas of tenting over fasteners where possible. Utilize a steel roller to ensure proper adhesion.
- H. Apply Cool-Sil BG (Brush Grade) at a rate of 2.0 gallons per square over all seam-tape reinforcement areas.
- I. Apply Cool-Sil base coat to entire roof surface at specified rate of 1.5 gallons per square. Allow 24 hours to properly cure, no more than 72 hours.
- J. Apply Cool-Sill top coat over all areas of roof at specified rate of 1.5 gallons per square.
- K. All Sections: Clean up all debris and/or damage done to grounds, building and roof top (if any). Contractor is responsible for any clean up and cost accrued.
- L. Contractor to provide a written (2) year workmanship warranty to manufacturer. The manufacturer is to provide a warranty coverage directly to the owner.

1.5 LIQUIDATED DAMAGES

- A. Work shall begin on approximately October 1st, 2024, or as agreed upon by all parties.
- B. All work as required in these specifications and drawings shall be completed by December 1st, 2024, or as agreed upon by all parties.
- C. Unless work is hampered by long period of inclement weather, by due proof of material unavailability, or by strike, the Owner will assess a penalty in the amount of \$300.00 a day for each day beyond the agreed completion date.

1.6 INTENT OF THE SPECIFICATIONS

- A. The intent of these specifications is to describe the material and methods of construction required for the performance of the work. In general, it is intended that the drawings shall delineate the detailed extent of the work. When there is a discrepancy between drawings, referenced specifications, and standards and this specification, this specification shall govern.

1.7 PROTECTION

- A. The contractor shall use every available precaution to provide for the safety of the property owner, visitors to the site, and all connected with the work under the Contract.
- B. All existing facilities both above and below ground shall be protected and maintained free of damage. Existing facilities shall remain operating during the period of construction unless otherwise permitted. All access roadways must remain open to traffic unless otherwise permitted.
- C. Barricades shall be erected to fence off all construction areas from operations personnel.
- D. Safety Requirements:
 - 1. All application, material handling, and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.
 - 2. Comply with federal, state, and local and owner fire and safety requirements.
 - 3. Advise owner whenever work is expected to be hazardous to owner employees and/or operations.
 - 4. Maintain a crewman as a floor guard whenever roof decking is being repaired or replaced and whenever any roofing is being removed.
 - 5. Maintain proper fire extinguisher within easy access whenever power tools, roofing kettles, and torches are being used. A MINIMUM OF A 2 HOUR FIRE WATER SHALL BE STRICTLY ADHERED TO WHENEVER PROPANE TORCHES ARE IN USE.
 - 6. ALL SAFETY REQUIREMENTS OF THE BUILDING OWNER MUST BE FOLLOWED. NO EXCEPTIONS WILL BE PERMITTED. SAFETY ORIENTATION MEETING REQUIRED PRIOR TO PERFORMING ANY WORK.

1.8 Bid Result Protests:

- A. Bids can only be protested by bidding contractors. Manufacturers, suppliers and or subcontractors are prohibited from filing a formal bid protest.
- B. Any contractor that desires to protest the bid results can do so by putting up the amount of their bid bond for this project. If the protesting contractor prevails, the bid bond amount will be returned upon the completion of the protest and findings. Should the protesting contractor fail to prove the protest to the satisfaction of the Owner and the Owners Representative, the value of the bid bond will be retained by the owner to pay for the additional research and cost for the delay of the project.

1.9 HOUSEKEEPING

- A. Keep materials neat and orderly.
- B. Remove scrap, waste and debris from the project area.
- C. Maintenance of clean conditions while work is in progress and cleanup when work is completed shall be in strict accordance with the "General Conditions" of this contract.
- D. Fire protection during construction.
- E. Follow all requirements established by the building owner.

END OF SECTION

Bid Form: Part A

2023 Roof Replacement Project

To: Laura Pierce, City Clerk
City of Auburn Hills
1827 N. Squirrel Rd.
Auburn Hills, MI 48326

Bid Due Date: **February 7th, 2024 @ 10AM**

Sealed bids, in triplicate, are to be submitted to the above address by the time and date listed above. Bids received after the Due Date and Time will not be considered.

Pursuant to notices given, the undersigned proposes to furnish all materials and labor necessary to complete the replacement as described below and in strict accordance to the plans and specifications dated **11-13-23**. I, the undersigned, having familiarized myself with the attached Contract Documents do hereby propose to furnish all labor, equipment, materials, drayage, tolls, supervision, etc. and to complete all work as specified in these Documents and Specifications. By my submission of this Bidding Proposal I acknowledge the receipt of the Package containing the following: General Conditions & Requirements, General Instructions to Bidders, Detailed Specifications, Detailed Rooftop Diagrams, and Detailed Specification Drawings. To provide supervision, labor, materials and equipment for roof repairs of the following items, per the attached.

The City of Auburn Hills shall utilize the Omnia Partner Purchasing Contract to secure a portion of the material for this project. The below (Bid Form: Part A) should include all but the direct purchase price of materials identified on Bid Form: Part B.

Club House (Sections A & B)

Base Bid #1: The base bid shall include the removal of the existing asphalt shingles, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of a vapor barrier and new dimensional shingle. Existing gutter and downspout design to be replaced with larger diameter components per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section A & B _____ DOLLARS (\$ _____)

Club House (Section C)

Base Bid #2: Base Bid #2 shall include the removal of the existing roofing membrane, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of 2-ply modified bitumen roofing system in cold-process adhesive per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section C _____ DOLLARS (\$ _____)

Contractor Name _____

Continue to next page

Club House (Section C)

Alt. #1: Alternate #1 shall include the removal of the existing roofing membrane, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of 2-ply modified bitumen roofing system in Zero-VOC cold-process adhesive per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section C _____ DOLLARS (\$ _____)

Cart Barn (Section D)

Add Alt. #1: Add Alternate #1 shall include the removal of the existing asphalt shingles, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of a vapor barrier and new dimensional shingle. Existing gutter and downspout design to be replaced with larger diameter components per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section D _____ DOLLARS (\$ _____)

Maintenance Building (Section E)

Add Alt. #2: Add Alternate #2 shall include the complete restoration of the existing metal roofing system. The new restoration system includes reinforcement, primer and two layers of restoration coating. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section E _____ DOLLARS (\$ _____)

*****Note:**

5% Bid Bond (Included with Bid)

100% Performance Bond

Extra work may be necessary other than required by the plans and specifications, extra work will be completed according to the written instructions of the Owner for the following unit prices:

Unit Cost Items: **Replacement of wood sheathing** – _____ per sq. ft.

Unit Cost Items: **Replacement of drain** – _____ per unit

Unit Cost Items: **Replacement of metal decking** – _____ per sq. ft.

Contractor Name _____

Continue to next page

Addenda Numbers _____ are hereby acknowledged

Respectfully Submitted,

SIGNATURE: _____

TITLE: _____

BUSINESS NAME: _____

CONTRACTOR ADDRESS: _____ **DATE:** _____

Bid Form: Part B

It is the intent of the City of Auburn Hills (“Agency”) to purchase materials for the City of Auburn Hills 2024 Roof Project (“Project”) located at 1827 N. Squirrel Rd. Auburn Hills, MI 48326 directly from Garland Inc., based upon the Agency’s participation in the Omnia Partners Government Purchasing Alliance’s program for Roofing Supplies and Related Products and Services, as priced by and awarded to Garland/DBS, Inc., resulting from the competitively solicited Sealed Bid #PW-1925 issued by the Racine County Board of Commissioners.

As a bidder on the Project, you are required to fill in your order quantities for the following materials as listed below:

Fieldstone Golf Club (Sections A/B)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4131	R-Mer Seal	Roll	200 SF	
	Flat Stock	24ga. Sheet	4’ x 10’	

Fieldstone Golf Club (Section C)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4376	StressPly Plus Smooth	Roll	100 SF	
4365	StressPly FR Mineral	Roll	75 SF	
4411-80	StressBase80	Roll	150 SF	
7339-5	WeatherKing Membrane Adhesive	5 Gallon	2.5 gal/sq	
7338-5	WatherKing Flashing Adhesive	5 Gallon	5 gal/sq	
7411-5	GarlaBrite	5 Gallon	0.75 gal/sq X2	
4840-6	GarMesh	Roll	150'x6"	
7342-5	WeatherScreen	5 Gallon	5 gal/sq	
7347	Insu-Lock HR	4 Cart. Case	600 SF	

Alternate #1

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4376	StressPly Plus Smooth	Roll	100 SF	
4365	StressPly FR Mineral	Roll	75 SF	
4411-80	StressBase80	Roll	150 SF	
7301-5	GreenLock Membrane Adhesive	5 Gallon	2.0 gal/sq	
7302-3	GreenLock Flashing Adhesive	3.5 Gallon	5 gal/sq	
7411-5	GarlaBrite	5 Gallon	0.75 gal/sq X2	
4840-6	GarMesh	Roll	150'x6"	
7342-5	WeatherScreen	5 Gallon	5 gal/sq	
7347	Insu-Lock HR	4 Cart. Case	600 SF	

Fieldstone Golf Club (Section D)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4131	R-Mer Seal	Roll	200 SF	
	Flat Stock	24ga. Sheet	4' x 10'	

Fieldstone Golf Club (Section E)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
21040-G	Cool-Sil HB Gray	5 Gallon		
21140-G	Metal Roof Primer	5 Gallon		
21060-G	Cool-Sil FG – Flashing Grade	2 Gallon		
6340-6	Uni-Bond ST	6" x 50'		

PLEASE NOTE:

1. It is the responsibility of the bidder to obtain any product-related information and pricing from the Garland representative prior to bid submission.
2. The bidder takes full responsibility for the material quantities entered above. Any additional materials required to complete the Project, over and above the quantities submitted by the bidder in this addendum, will be billed to the bidder directly and will not be the responsibility of the Agency.
3. Material quantities will be cross-referenced to an expected Project take-off to verify accuracy. Any bids that have material quantities substantially below or above the anticipated requirements for the Project will be rejected unless a detailed explanation is provided.



An aerial photograph of a road intersection. A rectangular area in the center of the intersection is highlighted with a black border and labeled with a circled 'D'. A dashed line runs horizontally through the center of the highlighted area. The surrounding area includes a parking lot with several cars, a grassy field, and a sidewalk.

THE GARLAND COMPANY INC.

THE GARLAND COMPANY INC
3800 E. 91st St. Cleveland, OH

CHK BY:

3800 E. 91st St. Cleveland, OH
PHONE (800) 321-9336 / FAX (216) 641-0633

SECTION 00 72 00 - GENERAL CONDITIONS

PART 1 GENERAL

1.1 DEFINITIONS

- A. The contract document consists of the AGREEMENT, the GENERAL CONDITIONS of the contract, the DRAWINGS and the SPECIFICATIONS, including all revisions hereto.
- B. The Owner, the Contractor and the Owner's Representative shall be indicated as such throughout these documents. The term Contractor as used herein shall designate the successful bidder to whom the roof contract is awarded.
- C. The term Owner shall be understood to be City of Auburn Hills.
- D. The term Owner's Representative shall be understood to mean the representative of the primary material manufacturer.

1.2 OWNER'S REPRESENTATIVE STATUS

- A. The Owner's Representative shall have general Rights of Inspection of the work and is the agent of the Owner in all matters pertaining to the work as provided in the Contract Documents. The Owner's Representative has the authority to stop work whenever such stoppage may be necessary to ensure the proper execution of the contract and shall have authority to reject any and all materials, whether worked or unworked, if such materials are not in accordance with the plans and specifications.

1.3 CONDITON OF SITE

- A. The bidders shall visit the site before submitting their bids and determine the field conditions affecting their work. In considering the bids, the Owner will assume that the bidders are aware of all items, pertinent to their work and have made allowance for same in their bids.

1.4 VERIFICATION OF DIMENSIONS AND ELEVATIONS

- A. Dimensions and elevations indicated on the drawings in reference to existing structures or utilities are the best available data but are not guaranteed by the Owner's Representative and the Owner's Representative will not be responsible for their accuracy. Before bidding on any paperwork dependent upon the data involved, the Contractor shall field check and verify all dimensions, grades, lines, levels or other conditions of limitations at the site to avoid construction errors. If any work is performed by the Contractor or any of his/her subcontractors prior to adequate verification or applicable data, any resultant extra cost for adjustment of work as required to conform to existing limitations, shall be assumed by the Contractor without reimbursement or compensation by the Owner.

1.5 PROTECTION OF OWNER'S OPERATIONS

- A. The Contractor shall erect such barriers, tarpaulins, doors, etc., as may be necessary to protect the Owner's operations while work is in progress. Any such openings that are essential to carrying on the work shall be securely closed by the Contractor when not in use to protect the Owner's operations.

1.6 PROTECTION OF WORK AND PROPERTY

- A. The Contractor shall maintain adequate protection of all his/her work from damage and shall protect the Owner's and adjacent property from injury or loss arising from this contract. He/she shall provide and maintain at all times any danger signs, guards and/or obstructions necessary to protect the public and his/her workmen from any dangers inherent with or created by the work in progress. He/she shall hold the Owner harmless from any loss arising due to injury or accident to the public or his/her workmen, or from theft of materials stored at the job site. All materials will be stored in locations other than on roof surfaces except as necessary and shall then be placed on plywood or other type of material to protect the roof surface at all times.
- B. Before starting any work, the Contractor shall protect all grounds, copings, paving and exterior of all buildings where work will be performed.
- C. In those areas where materials and/or hot asphalt will be raised to the roof area, a protective covering shall be placed from the base of the wall extending up and over the top edge of the roof. This coverage shall be wide enough to assure that the exterior walls do not become stained or soiled during roofing operations.
- D. Any areas of the building or grounds which have become stained or damaged in any way shall be repaired or replaced by the Contractor prior to the final inspections. The method of repair used must be acceptable to both the Owner and the Owner's Representative.

1.7 MATERIAL STORAGE AND CLEAN-UP

- A. The Contractor shall keep the premises free from rubbish at all times and shall arrange his/her material storage so as not to interfere with the Owner's operations. At the completion of the job, all the unused material and rubbish shall be removed from the site. The ground shall be raked clean and the building shall be broom cleaned. If the Contractor refuses at any time to remove his/her debris from the premises, or to keep the working area clean, such cleaning will be completed by the Owner and deducted from the balance due the Contractor.
- B. The Contractor shall also remove drippage of bitumen or adhesive from all walls, windows, floors, ladders and finished surfaces. Failure to do so will result in the work being done by others and the cost shall be deducted from the balance due the Contractor.
- C. Materials must be delivered with manufacturer's label in tact and legible. Labels must be affixed to the outside of the package stating the type of product, name and address of the manufacturer. All materials shall be stored and protected against weather, vandalism, and theft. Any materials found to be damaged or missing shall be replaced by the Contractor at no cost to the Owner.

1.8 INSPECTION OF WORK

- A. Where the drawings or specifications require the inspection and approval of any work in progress by the Owner's Representative, the Contractor shall give that Representative ample notice to allow for scheduling the inspection, which shall be made promptly to avoid delay of work. If work has progressed without the required inspections or approval by the Representative, it shall be uncovered for inspection at the Contractor's expense.
- B. Uncovering of work not originally inspected, or uncovering questioned work may be ordered by the Owner's Representative and it shall be done by the Contractor. If examination proves such work to be incorrectly done or not done in accordance with the plans and specifications, the Contractor shall bear all cost of the reexamination. If the work is proven correctly installed, all such expense shall be born by the Owner.

1.9 INSPECTION OF WORK IN PROGRESS AND UPON COMPLETION

- A. If directed by the Owner's Representative, the Contractor shall cut not more than four (4) cores, of approximately 200 square inches each, from every newly constructed roof area, in order to establish the amount of materials used per square foot, and shall restore all such areas to sound and watertight conditions as prior to the core testing.
- B. In the event that such core cuts disclose any deficiency in materials, or soundness of construction, the Contractor shall, at his/her own expense, apply additional materials or otherwise correct the deficiencies to the satisfaction of the Owner's Representative.
- C. Noncompliance with the terms of this specification and ensuing contract can result in either the cancellation of the contract, or complete replacement of the defective areas at the Contractor's expense. In the event of cancellation, the Owner will not be obligated to compensate the Contractor for any work undertaken in a defective manner
- D. Damages caused by water infiltration resulting from the failure of the Contractor to secure each day's work in a weather tight manner, will be corrected at the Contractor's expense. Included as damages will be all labor costs incurred by the Owner as a result of such water infiltration.
- E. The Owner will require the Owner's Representative to examine the work in progress, as well as upon completion, in order to ascertain the extent to which the materials and procedures conform to the requirements of these specifications and to the published instructions of the Manufacturer.
- F. The authorized Owner's Representative shall be responsible for:
 - 1. Keeping the Owner informed on a periodic basis as to the progress and quality of the work;
 - 2. Calling to the attention of the Contractor those matters he/she considers to be in violation of the contract requirements;
 - 3. Reporting to the Owner any failure or refusal of the Contractor to correct unacceptable practices;
 - 4. Conducting preliminary and subsequent job-site meetings with the Contractor's official job representative;
 - 5. Supervising the taking of test cuts, and the restoration of such areas;
 - 6. Rendering any other inspection services which the Owner may designate; and

7. Certifying, after completion of the work, the extent to which the Contractor has complied with these specifications as well as to the published instructions of the Manufacturing Company.
- G. The presence and activities of the Owner's Representative shall in no way relieve the Contractor of his/her contractual responsibilities.

1.10 MISCELLANEOUS UTILITIES

- A. Electrical power will be furnished by the Owner for small tools only. All connections to the electrical system will be furnished by the Contractor.
- B. Water for concrete, mortar, washing and drinking purposes will be furnished by the Owner. Any connections to the water system shall be completed by the Contractor.
- C. At the completion of the work, or when the above connections are no longer required, the Contractor shall remove all connections and leave the facilities in a condition at least as satisfactory as prior to the commencement of his/her work.
- D. Toilet facilities will be provided by the Contractor. The Contractor will be responsible for supplying a portable toilet on the job-site. The Contractor's personnel are not permitted to enter the building without proper authorization from the Owner or Owner's Representative.

1.11 CHANGES OR EXTRA WORK

- A. The Owner may, without invalidating the original contract, order such changes or additions as may from time to time be deemed desirable. In so doing, the contract price shall be adjusted, as stated below, with all work being done under the conditions of the original contract except for such adjustments in extension of time as may be acceptable to the Owner. The value of such extra work shall be determined in one of the following ways:
 1. By firm adjustment;
 2. By cost plus with a guaranteed maximum;
 3. By cost with a fixed fee; or
 4. By unit cost.
- B. If agreement is reached that the extra cost shall be handled as per methods 2, 3, or 4, the Contractor shall keep and compile a correct amount of the cost together with such vouchers, etc., as may be necessary to substantiate same for presentation to the Owner. The Owner's Representative shall have authority to make minor job changes or additions as may be necessary to expedite the job providing such changes do not involve additional material cost. No major change or addition shall be made except upon receipt by the Contractor of a signed order from the Owner authorizing such a change. No claims for an extra to the contract price shall be valid unless so authorized.
- C. All work covered by unit prices submitted by the Contractor in his/her proposal must be covered by a written work order. The Owner's Representative will prepare the work order in triplicate covering the quantity of work and the total cost of the work. The work order which will be written at the end of each day, will be signed by the Owner's Representative and the Contractor's foreman and/or superintendent.

1.12 CORRECTION OF WORK PRIOR TO FINAL PAYMENT

- A. The Contractor shall promptly remove any work that does not meet the requirements of the plans and specifications or is incorrectly installed or otherwise disapproved by the Owner or the Owner's Representative as failing to meet the intent of the plans and specifications. The Contractor shall promptly replace any such work without expense to the Owner and shall bear the cost of making good all work of other contractors, or the Owner, destroyed or damaged by such removal or replacement.

1.13 CORRECTION OF WORK AFTER FINAL PAYMENT

- A. The Contractor shall guarantee all materials and workmanship for two (2) years from date of final payment of the contract by the Owner. Any defects which may arise during this period shall be promptly repaired by the Contractor including any damage done to the Owner's property due to such defects.

1.14 DEDUCTION FOR UNCORRECTED WORK

- A. If the Owner deems it unacceptable to have the Contractor correct work which has been incorrectly done, a deduction from the contract price shall be agreed upon therefore. Such a deduction from the contract price shall in no way affect the Contractor's responsibility for defects which may occur nor his/her ability for correcting them, and damage caused by them.

1.15 LIENS

- A. The Contractor shall, if required by the Owner, furnish him/her with a release in full of all liens arising out of this contract or in lieu thereof, and receipts in full for all materials and labor on the job. In either case, the Contractor shall furnish an affidavit that the liens or receipts include all the labor and material for which a lien could be filed. In lieu of the above, the Contractor may at his/her option furnish a bond to indemnify the Owner against all hazard of liens. Neither part nor final payment shall in any way release the Contractor from the above obligation and in the event that part or full payment has been made and any lien remains undischarged, the Contractor shall refund to the Owner the necessary funds to discharge such a lien including all cost and attorney's fees.

1.16 JOB CONDITIONS

- A. All surfaces to be covered shall be smooth, dry, and free from dirt, debris, and foreign material before any of this work is installed. Pumping equipment shall be located on the ground at a safe distance from building; the location being subject to the approval of the Owner. The Contractor shall be responsible for guarding against fires, and shall provide suitable fire extinguishers conveniently located at the site. Competent operators shall be in attendance at all times equipment is in use. Materials shall be stored neatly in areas designated by the Owner and dispersed so as to present a minimum fire hazard. Loads placed on the roof at any point shall not exceed the safe load for which the roof is designed.
- B. There is NO SMOKING allowed inside any buildings and the Contractor shall be responsible for enforcement of this job rule at all times with his/her personnel.
- C. The Contractor should be aware of Owner's property when tearing off the existing roof. This is required for removal of dirt, silt, debris, roof membrane and insulation from the roof surface in order to preserve the ecology, eliminate unsightly conditions and protect building faces. Specific locations will be discussed at the pre bid conference.

- D. Rolled Roofing Materials: All rolled roofing materials must be stored standing on end on a pallet or otherwise raised off of the roof. The materials are to be covered in a proper manner to assure that they will not become wet prior to application. Any materials that become wet or damaged must be removed from the job-site and replaced at the Contractor's expense.
- E. Asphalt Kettle: Placement of the kettle shall be in a position so as not to interfere with the ongoing operations of the Owner. The asphalt to be used must be placed on a protective covering of some type until it is raised to the roof. A minimum of two (2) fire extinguishers and "Fire Out" must be adjacent to the kettle.
- F. Ladders: Any ladders used on this project must be in good condition. The ladder must also be secured at the roof line at all times while in use. All ladders must be O.S.H.A. approved.
- G. No drugs or alcoholic beverages are permitted on the grounds.
- H. The Contractor shall place necessary barriers and/or protection around or under all work areas where his/her operations involve risk of injury to plant.
- I. The Contractor will also protect the building structure from damage in the process of the job. In the event that damage does occur to any property or equipment, or the Owner's work in process, notification must be made within two (2) working days of the incidents to the Owner and Owner's Representative.
- J. During the progress of the job, if waste material and rubbish are found or damage resulting from the Contractor's operations is found, or the Contractor does not comply with the requirement by keeping the premises free of accumulations and correct the damage, it shall be the Owner's prerogative to hire personnel to do so; and the cost of this work will be deducted from the balance due the Contractor.
- K. Existing roof top equipment walls, windows, etc. shall be completely protected by masking or other effective methods. Any mastics or asphalt must be cleaned off metal surfaces.
- L. The Contractor is responsible for protecting all materials from the elements. If any material, such as insulation, becomes wet, it cannot be installed and must be replaced at the Contractor's expense. NOTE: Insulation and rolled roofing materials must be covered with waterproof tarps at the end of each work day. Plastic wrappers supplied by the insulation manufacturer are not acceptable substitutes for tarps. The Owner's Representative will reject any covering method material which does not adequately protect roofing materials.
- M. Anyone guilty of willful destruction or unlawful removal of company property will be dismissed from the job and is subject to prosecution by law.
- N. Any lawns damaged by Contractor vehicles will be restored with a stand of grass at the Contractor's expense. Any damaged pavements will likewise be restored at the Contractor's expense.
- O. The Contractor must verify that all materials can be installed to accommodate the building design, pertinent codes and regulations, and the manufacturer's current recommendations.
- P. The Contractor will ensure that all substances are clean, dry, sound, smooth, and free of dirt, debris, and other contamination before any materials are supplied.

- Q. Any isolated areas that must be torn off and replaced will be built-up to the height of the existing roof prior to the installation of the new roofing membrane system.

1.17 WORKMANSHIP

- A. All materials will be securely fastened and placed in a watertight, neat and workmanlike manner. All workmen shall be thoroughly experienced in the particular class or work upon which they are employed. All work shall be done in accordance with these specifications and shall meet the approval of the Owner or Owner's Representative. The Contractor's representative or job supervisor shall have a complete copy of specifications and drawings on the job-site at all times.
- B. Contractor shall plan and conduct the operations of the work so that each section started on one day is complete and thoroughly protected before the close of work for that day.

1.18 INSULATION

- A. Insulation shall have accurate dimensional stability so as to properly conform to the surfaces of the roof, cants, curbs, pipes, etc. Joints between boards shall be tight and insulation shall be held back $\frac{1}{2}$ " from vertical surfaces and sumps. Insulation shall be protected from the weather at all times. No more insulation shall be laid than can be completely covered with roof materials on the same day. A base sheet shall not be considered as a proper weather barrier.
- B. Insulation that becomes wet during or after installation shall be removed and replaced with dry insulation. If roofing is in place, the roofing shall be also replaced. All replacing work shall be done at no added cost to the Owner.

1.19 ROOF DECK

- A. Contractor shall notify the Owner or Owner's Representative of any unforeseen areas of wet insulation. Where the damage is serious and extensive, it will be the Owner's prerogative to authorize removal and replacement of deteriorated roofing, insulation and repair of the vapor barrier, if present. Where damage to the roof deck is found, the Contractor shall furnish the Owner with a unit price for removal and replacement of the damaged deck.

1.20 SAFETY

- A. Contractor shall conform to requirements as designated by the United States Federal Government (O.S.H.A.). Contractor shall abide by all regulations as outlined in the O.S.H.A. handbook and shall have a handbook on location at all times.
- B. Contractors hereby acknowledged that they and their workers have undergone Safety Training and shall at all times act in compliance with all NRCA recommended safety compliance rules and regulations.

1.21 INSURANCE

- A. The following standard indemnity agreement and minimum insurance requirements are incorporated in the Specifications for all work performed by Contractors for the

Owner, its affiliated and associated organizations or subsidiaries, hereinafter referred to as Owner.

1. THE CONTRACTOR AGREES TO INDEMNIFY AND SAVE THE OWNER AND OWNER'S REPRESENTATIVE HARMLESS FROM AND AGAINST ANY AND ALL COSTS, LOSS AND EXPENSE, LIABILITY DAMAGES, OR CLAIMS FOR DAMAGES, INCLUDING COST FOR DEFENDING ANY ACTION, ON ACCOUNT OF ANY INJURY TO PERSONS (INCLUDING DEATH) OR DAMAGE TO OR DESTRUCTION OF PROPERTY OF THE OWNER, ARISING OR RESULTING FROM THE WORK PROVIDED FOR OR PERFORMED, OR FROM ANY ACT, OMISSION, OR NEGLIGENCE OF THE CONTRACTOR, SUBCONTRACTOR AND THEIR AGENTS OR EMPLOYEES. THE FOREGOING PROVISIONS SHALL IN NO WAY BE DEEMED RELEASED, WAIVED OR MODIFIED IN ANY RESPECT BY REASON OF ANY INSURANCE OR SURETY PROVIDED BY THE CONTRACTOR.
2. All sub-contractors are required to file Certificated of Insurance properly completed and signed by an authorized insurance company representative before their work commences on the job or job site. No monies will be paid until the acceptable certificates are on file with the Contractor. Such certificates shall provide that there will be no cancellation, reduction or modification of coverage without thirty (30) days prior written notice to the Contractor. In the event such certificates are not provided to the Contractor prior commencement of work, Contractor's failure to demand such certificates shall not be deemed a waiver of Subcontractor's requirement to obtain the subject insurance.
3. The Contractor shall provide and maintain standard fire, extended coverage perils, vandalism and malicious mischief insurance to protect the interest of both the Contractor and the Owner for materials brought into the job or stored on the premises. Such insurance shall be for 100% of the insurable value of the work to be performed including all items of labor and materials incorporated therein, materials stored at the job-site to be used in completing the work, and such other supplies and equipment incidental to the work as are not owned or rented by the Contractor, the cost of which are included in the direct cost of the work. This insurance shall not cover any tools, derricks, machinery, tar buckets, ladders, engines, workmen's quarters, boilers, pumps, wagons, scaffolds, forms, compressors, shanties, or other items owned or rented by the Contractor, the cost of which is not included in the direct cost of the work.
4. In accordance with Section (1.21), the Contractor and subcontractor(s) shall maintain the following insurance:
 - a. Workmen's Compensation and Employer's Liability Insurance affording:
 - 1) Protection under the Workmen's Compensation Law of the States in which the work is performed; and
 - 2) Employer's Liability protection subject to a minimum limit of \$100,000.
 - b. Comprehensive General Liability Insurance in amounts not less than:
 - 1) Personal Injury: \$1,000,000 per person (including bodily injury) \$1,000,000 per occurrence
 - 2) Property Damage: \$1,000,000 per occurrence
 - c. Comprehensive Automobile Liability Insurance in the following minimum amounts:
 - 1) Bodily Injury \$1,000,000 per person \$1,000,000 per occurrence
 - 2) Property Damage \$1,000,000 per occurrence
 - d. This insurance shall:

- 1) Include coverage for the liability assumed by the Contractor under this section (section 1.21.A.1) (Indemnity);
- 2) Includes coverage for:
 - a) Premises, operations and mobile equipment liability
 - b) Completed operations and products liability
 - c) Contractual liability insuring the obligation assumed by the subcontractor in this agreement.
 - d) Liability which subcontractor may incur as a result of the operations, acts or omissions of subcontractors, suppliers or material men and their agents or employees; and
 - e) Automobile liability including owned, non-owned and hired automobile.
- e. All coverage will be on an occurrence basis and on a form acceptable to the Contractor.
 - 1) Include completed operation coverage which is to be kept in force by the Contractor for a period of not less than one year after completion of the work provided for or performed under these specifications;
 - 2) Not be subject to any of the special property damage liability exclusions commonly referred to as the exclusions pertaining to blasting or explosion, collapse or structural damage and underground property;
 - 3) Not be subject to any exclusion of property used by the insured or property in the case, custody or control of the insured or property as to which the insured for any purpose is exercising physical control; and
 - 4) The Certificate of Insurance furnished by the Contractor shall show specific reference that each of the foregoing items have been provided for.
5. The Certificates of Insurance furnished by the Contractor as evidence of the Insurance maintained by him shall include a clause obligating the Insurer to give the Owner thirty (30) days prior written notice or cancellation of any material change in the insurance.

1.22 WORK HOURS AND DAYS

- A. When the Contract is awarded, the Contractor will contact the Owner's Representative to arrange the work schedule and the hours of the day that the workmen may be on the building. The job is to be bid under the assumption that all work will be performed on a straight time basis.

1.23 COMPLIANCE WITH LAWS

- A. The Contractor shall give notices, pay all fees, permits and comply with all laws, ordinances, rules and regulations bearing on the conduct of work.

1.24 OWNER'S RULES

- A. The Contractor and all his/her personnel/agent(s) shall abide by all rules created by the Owner. The Contractor must contact the Owner's Representative for specific information regarding the rules governing all operations of the project.
- B. The Contractor shall properly notify all employees of conditions relating to roof areas with very poor condition and which will be worked on. After such notification, the

Contractor must take all necessary precautions to ensure the safety of his/her employees as well as the building personnel.

- C. THE CONTRACTOR SHALL "HOLD HARMLESS" THE MATERIAL MANUFACTURER, AGAINST ANY LITIGATION ARISING FROM ANY ACCIDENTS DURING THE COURSE OF THE CONTRACT.

1.25 SAFETY AND ECOLOGY

- A. The Contractor(s) shall conform to the requirements as designated by the United States Federal Governments (e.g., O.S.H.A).

1.26 ANTI-DISCRIMINATION IN EMPLOYMENT

- A. Contractors and subcontractors shall not discriminate against any employees or applicant for employment, to be employed in performance of his/her contract, with respect to his/her hire, tenure, terms, conditions or privileges of employment because of his/her race, color, gender, sexual preference, religion, national origin, or ancestry.

PART 2 INSTRUCTIONS TO BIDDERS

2.1 WITHDRAWAL OR MODIFICATION OF BID

- A. Any Bidder may withdraw his/her bid at any time before the scheduled closing date of the bid by appearing in person or by sending an authorized representative of the Bidder. An appointment should first be scheduled by calling the Owner's Representative. The Bidder or his/her representative shall be asked to sign, in writing that the bid was returned to him/her/ after the withdrawal from the contract, the Bidding Contractor may not resubmit them.

2.2 BID OPENINGS

- A. Bids will be opened publicly and read aloud at the published date and time. Notice of award will be made by written correspondence.

2.3 QUESTIONS

- A. Technical questions regarding this bid can be directed to: Brad Konvolinka
- B. If the Contractor feels a conflict exists between what is considered good roofing practice and these specifications, he/she shall state in writing all objections prior to submitting quotations.
- C. It is the Contractor's responsibility, during the course of the work, to bring to the attention of the Owner's Representative any defective membrane, insulation or deck discovered which has not been previously identified.

2.4 RESPONSIBILITY FOR MEASUREMENTS AND QUANTITIES

- A. The Bidding Contractors shall be solely responsible for all accuracy of all measurements and for estimating the material required to satisfy these specifications.

2.5 DISCREPANCIES AND ADDENDA

- A. Should a Bidder find any discrepancies in the Drawings and Specifications, or should he be in doubt as to their meaning, he/she shall notify the Owner's Representative at once, who will send a written Addendum to all Bidders concerned. Oral instructions or decisions, unless confirmed by Addenda, will not be considered valid, legal or binding.
- B. No extras will be authorized because of the Contractor's failure to include work called for in the Addenda in his/her bid.
- C. It shall be the responsibility of all Bidders to call to the Owner's Representative's attention at the pre bid meeting, any discrepancies which may exist between or with any of the contract documents, or any questions which may arise as to their true meaning.
- D. Modifications to the specifications (if necessary) will be followed by an addendum; no verbal discussions or agreements shall be recognized.

2.6 COMPETENCY OF THE BIDDERS

- A. To enable the Owner to evaluate the competency and financial responsibility of a Contractor, the low Bidder shall, when requested by the Owner, furnish the information indicated in Section 5.0 below, entitled Contractor's Qualification Statement, which shall be sworn to under oath by him/her or by a properly authorized representative of the Bidder.

2.7 DISQUALIFICATION OF BIDDERS

- A. Any one or more of the following causes may be considered sufficient for the disqualification of a Bidder and the rejection of his/her bid(s):
 - 1. Failure to attend the pre bid meeting;
 - 2. Evidence of collusion among Bidders;
 - 3. Lack of responsibility as revealed by either financial, experience or equipment statements, as submitted;
 - 4. Lack of expertise as shown by past work, and judged from the standpoint of workmanship and performance history;
 - 5. Uncompleted work under other contracts which, in the judgment of the Owner, might hinder or prevent the prompt completion of additional work if awarded; or
 - 6. Being in arrears on existing contracts, in litigation with an Owner, or having defaulted on a previous contract.

2.8 NOTICE OF AWARD

- A. The award of this contract for the work is contingent upon receipt of an acceptable bid. Any part of or all bids may be rejected. All bids shall be good for a period of sixty (60) days following the date the bids are due. The contract shall be deemed as having been awarded when the formal notice of acceptance of his/her proposal has been duly served upon the intended awardee by an authorized officer or agent of the Owner.

2.9 WARRANTY

- A. A written warranty which will commence from date of acceptance by Manufacturer must be supplied with the roof installation. This warranty will cover all defects in workmanship and materials. Damages caused by storm, vandalism and other trades are not included in the warranty. This warranty shall be from the manufacturer (See further, Statement of Policy).
- B. A two (s) year workmanship warranty is required from the Contractor for all remedial maintenance done under the terms of this contract.

2.10 START AND COMPLETION DATE

- A. Work shall begin within thirty (30) days from the award of this contract, or as agreed upon by all parties.
- B. All work as required in these specifications and drawings shall be completed within sixty (60) days of the start date, or as agreed upon by the parties.
- C. Unless work is hampered by long period of inclement weather, by due proof of material unavailability, or by strike, the Owner will assess a penalty in the amount of \$300.00 a day for each day beyond the agreed completion date.
- D. The Contractor is responsible for supplying trained workmen in proper numbers and for scheduling and laying out his/her work, so that it will be started and completed in a professional manner within the time period indicated on his/her Proposal form.
- E. If the Contractor sets equipment onto the job-site without commencing work immediately, the action will be considered "Spiking the job" which is unacceptable and will be considered a breach of contract by the Contractor; thereby, the contract will be terminated and the Contractor at no cost to the Owner, must remove his/her equipment and possessions from the job-site upon notification by the Owner.

2.11 PAYMENT

- A. Payment for materials shall only be made after the material has been delivered to the job-site. An invoice for the material must be presented to the Owner for payment. Materials are not to be delivered to the job-site until the project is ready to begin. The Contractor must provide a release of lien from the Material Manufacturer. Subsequent requests for payment can made monthly. Final payment for the project will be made following completion, after final inspection has been made and an invoice presented to the Owner. A 10% retainer shall be held until delivery of the warranty.
- B. When the job in progress is interrupted for two (2) weeks or longer by causes beyond the Contractor's control such as a strike, weather, acts of God, etc., the Owner agrees to pay, upon request of the Contractor, a price equivalent to the percentage of work completed at that time. Regular progress payments shall be made for labor and/or materials.
- C. Each invoice shall be accompanied by a detailed estimate of the amounts and values of labor expended and materials purchased up to the last day of the

preceding month. The amount of the invoice shall not exceed ninety percent (90%) of the labor and material values estimated for the preceding month.

- D. Such payments shall be viewed by both parties as progress payments and shall not in any way relieve the Contractor of performance obligations under this contract, nor shall such payments be viewed as approval or acceptance of work performed under this contract.
- E. Final payment shall be withheld until all provisions of the specifications are met, including all necessary clean-up, and the Owner receives written verification of completion.
- F. Upon completion of the job, the Owner, the Owner's Representative, and the Contractor will make final inspection of the work done, and the Owner's Representative if requested by Owner's Representative.
- G. All payments for material used in the execution of this contract can be made by a check issued jointly, payable to the Contractor and Owner's Representative will sign a completion slip authorizing final payment.
- H. If requested by the Owner and/or Owner's Representative, the Contractor shall provide a Letter of Credit from the bank to secure payment to material supplier.
- I. If requested by the Owner and/or Owner's Representative, a certified check shall be paid by the Contractor to material supplied prior to release of order.
- J. If requested by the Owner and/or Owner's Representative, a certified check shall be paid by the Contractor to material supplier via common carrier upon receipt of delivery.
- K. Contractor shall have a pre-approved line of credit from the material supplier.
- L. Final payment shall be made to the Contractor no later than thirty (30) days after job approval, providing the Contractor submits waivers of lien with his/her final invoice indicating that all suppliers have been paid.

2.12 PERFORMANCE AND PAYMENT BOND

- A. The successful Contractor will be responsible for securing a performance and payment bond from an acceptable bonding company. The cost of the bond will be paid directly by the Contractor. Contractor has to identify his/her bonding company and agent, submitting this documentation with his/her proposal. Note: See "Instruction to Bidders."
- B. Financial documentation prescribed by the Owner to ensure that the Contractor is financially sound and capable of supporting the project to its conclusion.
- C. If the successful Bidder is incorporated, an affidavit authorizing persons to sign for the Corporation. This should be in the form of minutes of the meeting of the Board of Directors, authorizing person or persons to sign for this contract work and indicating a quorum being present.

2.13 TERMINATION BY THE OWNER FOR CAUSE

- A. The Owner may terminate the contract and finish the work by whatever reasonable method he/she deems expedient if the Contractor:
 - 1. Persistently or repeatedly refuses to supply specified materials or to provide enough skilled workers to ensure the project will be completed within the time period indicated on his/her Proposal form;
 - 2. Fails to make payment to sub-contractors and/or suppliers for labor and materials as stipulated in the contract documents; and
 - 3. Is guilty of substantial breach of a provision of the contract documents.
- B. When the Owner terminates the contract for any of the above reasons, the Contractor shall not be entitled to receive further payment until the work is finished. If the unpaid balance of the contract sum exceeds the cost of finishing the work, it will be paid to the Contractor. If the cost to finish the work exceeds the unpaid balance, the Contractor shall pay the difference to the Owner.

2.14 COMPLIANCE WITH LAWS

- A. The Contractor shall give notices, pay all fees, permits and comply with all laws, ordinances, rules and regulations bearing on the conduct of work.

PART 3 --- CONTRACTOR'S INSTRUCTIONS

3.1 TAXES

- A. Contractor must comply with all state, federal and local taxes. The Contractor shall accept sole and exclusive responsibility for any and all state federal taxes with respect to Social Security, old age benefits, unemployment benefits, withholding taxes and sales taxes.

3.2 CONTRACTOR'S LICENSE

- A. All pertinent state and local licenses will be required.

3.3 QUALIFICATION OF BIDDERS

- A. Provide State of Michigan pre-certification forms.

3.4 BUILDING PERMITS

- A. The acquisition of the applicable permits and associated costs to obtain said permits will be the responsibility of the successful Contractor.

3.5 JOB COORDINATION

- A. Contractor is responsible for daily communication with the Owner or Owner's Representative relating to areas of roof work in order that the Owner may adequately protect tenant's personal belongings, and the people themselves against possible damage or injury. Contractor is also responsible for policing and protecting areas involving removal and replacement of roof projections, defective decking or other work involving deck penetration.
- B. Twenty-four hours prior to starting of the project and/or delivery of materials, the Contractor shall notify _____ Owner _____.

3.6 CLEAN-UP

- A. Accumulated debris shall be removed periodically to assure maximum safety and sanitation at all times. At completion of work, the Contractor shall remove all excess material and debris from the site and leave all roof surfaces free from accumulations of dirt, debris and other extraneous materials. The Contractor shall also remove any and all drippage of bituminous materials from the face of the buildings, floor, window, ladders and other finished surfaces.

3.7 SUPERINTENDENT

- A. The Contractor shall keep a competent superintendent, satisfactory to the Owner and Owner's Representative, on the job at all times when work is in progress. The superintendent shall not be changed without notifying the Owner and the Owner's Representative unless the superintendent ceases to be in the employ of the Contractor.
- B. The superintendent shall represent the Contractor in his/her absence and all directions and instructions given to the superintendent shall be as binding as if given directly to the Contractor.
- C. The superintendent shall be responsible for the conduct of all the Contractor's employees on the premises and shall promptly take necessary measures to correct any abuses called to his/her attention by the Owner.

3.8 INSPECTIONS

- A. Before any material applications are made, the Owner or his/her representative and the material supplier representative shall be available to ensure a complete understanding of the specification.
- B. The accepted Material Manufacturer will have a representative on site a minimum of three (3) times a week to verify compliance with the specifications, answer questions that may arise and provide on-going inspection services.
- C. A final inspection shall be conducted by Owner, Contractor, and the Owner's Representative upon being notified of completion of specified work and clean-up.

PART 4 – STATEMENT OF POLICY

4.1 ENGINEERING

- A. In addition to high-quality products, the Material Manufacturer provides recommendations and/or specifications for the proper installation of its material. However, the Material Manufacturer does not, nor does its representative, practice engineering or architecture. The Material Manufacturer makes no judgments on, and hereby disclaim any responsibility for the soundness of any roof deck or other structural component of buildings upon which the Material Manufacturer products are applied, and further recommend a structural engineer to examine the deck conditions. Re-roofing or Ballasted Roofing Systems will require certification from a structural engineer that the structure will support the proposed additional weight.

4.2 GUARANTEES

- A. A roofing guarantee is available for review from the Material manufacturer for the roofing systems published in these specifications. The guarantee will be issued only upon completion of all the guarantee requirements by an approved Contractor. Such guarantees cannot be altered or amended, nor may any other warranties, guarantees or representations be made by an agent or employee of the Material Manufacturer unless such alteration, amendment or additional representation is issued in writing and is signed by a duly authorized officer of the Material Manufacturer, and sealed with the Material Manufacturer seal. This guarantee does not cover cosmetic deficiencies. THE MATERIAL MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO THE BUILDING OR ITS CONTENTS OR ANY OTHER CONSEQUENTIAL DAMAGES, AND ITS RESPONSIBILITY IS LIMITED TO REPAIRING LEAKS. The Contractor will warranty the roof to the Material Manufacturer for a period of two (2) years. The Contractor will inspect the roof with the Owner's Representative 18 months after completion, and, at the Contractor's expense, correct any workmanship defects before the 24th month following completion of the project.

4.3 APPROVED CONTRACTORS

- A. The roof systems must be applied only by those contractors who have received approval from the Material Manufacturer for such installations. No guarantees will be issued when installation has been performed by a non-approved contractor.

4.4 ROOFING SEQUENCE

- A. Phase roofing is not acceptable. Any insulation or base layers laid in any one day must be covered with the properly installed roof system that same day. Failure to do so will void any warranties and no guarantee will be issued for the roofing system.

4.5 ACCEPTABILITY OF COMPLETED WORK

- A. The acceptability of completed roofing work will be based on its conformance to the contract requirement. The Material Manufacturer is not obligated to accept non-conforming work, and such non-conforming work may be rejected. The rejected work shall be promptly replaced or corrected in a manner and by methods approved by the Material Manufacturer at the Contractor's expense. The Material Manufacturer will instruct the Contractor's foreman and work crew on the proper methods of installation of the roofing system, and will follow-up on a regular basis to inspect the work being done. Any deficiencies from the specified work noted by the Material Manufacturer will be immediately reported to the Owner, along with recommended corrective actions necessary. The Material Manufacturer will not act in a supervisory capacity, and will not be responsible for the Contractor's errors or omissions.

4.6 ENGINEERING AND ROOF DECK

- A. The Material Manufacturer nor its representatives, practice engineering nor architecture. It makes no judgments on, and hereby disclaim any responsibility for the soundness of any roof deck or other structural component of buildings upon which its products are applied. Re-roofing and general building structuring require certification from a structural engineer that the structure will support the proposed additional weight. In addition, the Contractor must notify the Owner or his/her representative on the job-site of any unforeseen areas of wet insulation. Where the damage is serious and extensive, it will be the Owner's prerogative to authorize removal and replacement of deteriorated roofing, insulation and repair of the vapor

barrier if present. Where damage to the roof deck is found, the Contractor shall furnish the Owner with a unit price for removal and replacement of the damaged deck.

4.7 ASBESTOS IDENTIFICATION

- A. The Material Manufacturer routinely conducts roof surveys and inspections in order to provide recommendations and/or specifications for the use of its products. However, the MATERIALS MANUFACTURER IS NOT, NOR ARE ITS REPRESENTATIVES, CERTIFIED TO IDENTIFY, HANDLE OR MONITOR ASBESTOS IN ROOFING, DECKING OR INSULATION. THEREFORE, IT MAKES NO JUDGMENTS ON AND HEREBY DISCLAIMS ANY RESPONSIBILITY FOR IDENTIFYING, HANDLING OR MONITORING ASBESTOS. If a building owner suspects that an asbestos condition exists on or under the roof area in question, Material Manufacturer can recommend licensed laboratories and technicians that can identify, remove, dispose of, and monitor the project.

4.8 ASBESTOS LIMITATIONS

- A. The Owner has been informed, acknowledges and agrees that Material Manufacturer is not engaged in the business of identifying, abating, encapsulating or removing asbestos or asbestos containing materials from the work site and has not agreed to do so herein.
- B. IN CONSIDERATION OF THE PROVISION HEREOF, THE OWNER HEREBY AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS THE MATERIAL MANUFACTURER, ITS OWNERS, OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS, INCLUDING THE ENGINEER FROM AND AGAINST ANY AND ALL LIABILITIES, DAMAGES, LOSSES AND EXPENSES (INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES) ARISING OUT OF, OR RELATING TO, ANY CLAIMS, DEMANDS, OR CAUSES OF ACTION OF ANY KIND,, ATTRIBUTABLE TO, ARISING OUT OF, OR RELATING TO THE PRESENCE OF ASBESTOS OR ASBESTOS-CONTAINING MATERIALS ON OR AT THE WORK SITE AND/OR THE ABATEMENT, ENCAPSULATION AND/OR THE REMOVAL THEREOF.

4.9 MOLD LIMITATIONS

- A. The Garland Company makes no representation or warranty, express, implied, or otherwise, regarding mold, fungi, rust, corrosion or other bacteria or organism. Neither shall Garland have any duty to identify, nor accept any responsibility or liability for any claims associated with mold, fungi, rust, corrosion or other bacteria or organism related claims.

END OF SECTION

SECTION 01 43 33.75 - ROOFING MANUFACTURER'S FIELD SERVICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including the Conditions of the Contract and Division 07 Specification Sections apply to this Section.

1.2 SUMMARY

- A. Section includes Manufacturer's field services for roofing assemblies.
- B. Related Sections:
 - 1. Section 07 05 00 – Common Work Results for Thermal and Moisture Protection.
- C. Related Work Specified Elsewhere:
 - 1. Roofing Material: Section 07 52 00- Modified Bituminous Membrane Roofing.

1.3 REFERENCES

- A. International building Code (current edition) or local authority building code.
- B. American Society of Civil Engineers (ASCE): ASCE 7, Minimum Design Loads for Buildings and Other Structures.
- C. Factory Mutual Global (FMG): Roof Assembly Classifications.
- D. National Roofing Contractors Association (NRCA): Roofing and Waterproofing Manual.
- E. American National Standards Institute and Single Ply Roofing Institute (ANSI/SPRI): ANSI/SPRI ES-1 Testing and Certification Listing of Shop Fabricated Edge Metal.

1.4 SUBMITTALS FOR REVIEW

- A. Product Data: Provide manufacturer's technical product data for each type of roofing product specified. Include data substantiating that materials comply with specified requirements.
- B. Specimen Warranty: Provide an unexecuted copy of the warranty specified for this Project, identifying the terms and conditions required of the Manufacturer and the Owner.
- C. Roofing System Manufacturer's Evaluation: Provide a comprehensive written assessment comparing available roofing solutions with validation of why the roofing system selection for the specific project is suitable and appropriate.
- D. Roofing System Manufacturer's Report Form: Provide a copy of the report form utilized by the roofing system manufacturer for progress inspections to monitor installation and quality.

- E. Online Reporting Capabilities: Provide a sample of the roofing system manufacturer's online roof inspection report as well as information about how long inspection reports are available to owner.

1.5 SUBMITTALS FOR INFORMATION

- A. Manufacturer's Installation Instructions: Submit installation instructions and recommendations indicating special precautions required for installing the membrane.
- B. Manufacturer's Certificate: Certify that roof system furnished is approved by Factory Mutual Global, Underwriters Laboratories, Warnock Hersey or approved third party testing facility in accordance with ASTM E108, Class A for external fire and meets local or nationally recognized building codes.
- C. Manufacturer's Certificate: Certify that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- D. Written certification from the roofing system manufacturer certifying the applicator is currently authorized for the installation of the specified roof system.
- E. Design Loads: Submit copy of engineer's stamped manufacturer's minimum design load calculations according to ASCE 7, Method 2 for Components and Cladding. In no case shall the design loads be taken to be less than those detailed in Design and Performance Criteria article of this specification.
- F. Qualification data for firms and individuals identified in Quality Assurance Article below.
- G. Test Reports: Submit ANSI/SPRI ES-1 Testing and Certification Listing of Shop Fabricated Edge Metal Products.
- H. Substitutions: Products proposed as equal to the products specified for this project shall meet all of the requirements in the appropriate Division 7 specifications and shall be submitted for consideration at least 7 days prior to the date that bids must be submitted.
 - 1. Proposals shall be accompanied by a copy of the manufacturer's standard specification Section. That specification Section shall be signed and sealed by a professional engineer licensed in the state in which the installation is to take place. Substitution requests containing specifications without licensed engineer certification shall be rejected for non-conformance.
 - 2. Manufacturer's checklist will be accompanied with any substitution to verify equal performance characteristics to those specified in Division 7 specification.
 - 3. The Owner's decision regarding substitutions will be considered final.

1.6 CONTRACT CLOSEOUT SUBMITTALS

- A. Project Warranty: Provide specified warranty for the Project, executed by the authorized agent of the Manufacturer.
- B. Roofing Maintenance Instructions: Provide a roof care and maintenance manual of manufacturer's recommendations for maintenance of installed roofing systems.

- C. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.
- D. Inspection Logs: Copy of inspection reports as performed by the manufacturer shall be submitted at project closeout and include photographic documentation of installation progress, weather conditions, and personnel on the project at the time of every inspection.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with not less than [12] years documented experience and have ISO 9001 certification.
- B. Installer Qualifications: Company specializing in specified roofing installation with not less than [5] years experience and authorized by roofing system manufacturer as qualified to install manufacturer's roofing materials.
- C. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress. Maintain proper supervision of workmen.
- D. Maintain a copy of the roof plans, details, and specifications in the possession of the Supervisor/Foreman and on the roof at all times.
- E. Source Limitations: Obtain all primary components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer.
 - 1. The manufacturer providing the roofing system warranty must verify that they manufacture a minimum of 75% of the products utilized in the roofing system of this project. Products that are private labeled shall not be considered as manufactured by the roofing system supplier.
 - 2. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.
- F. Source Quality Control: Manufacturer shall have in place a documented, standardized quality control program such as ISO-9001.

1.8 PRE-INSTALLATION CONFERENCE

- A. Pre-Installation Roofing Conference: Convene a pre-roofing conference approximately two (2) weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installer of each component of associated work: installers of deck or substrate construction to receive roofing work: installers of rooftop units and other work in and around roofing that must precede or follow roofing work (including mechanical work if any): architect and/or engineer: owner: roofing system manufacturer's full time employee: and other representatives directly concerned with performance of the Work, including (where applicable) owner's insurers, testing agencies and governing authorities. Objectives of conference include:
 - 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.

2. Tour representative areas of roofing substrates (decks), inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work performed by others.
 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
 4. Review roofing system requirements (drawings, specifications and other contract documents).
 5. Review required submittals both completed and yet to be completed.
 6. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 7. Review required inspection, testing, certifying and material usage accounting procedures.
 8. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not a mandatory requirement).
 9. Record discussion of conference including decisions and agreements (or disagreements) reached and furnish a copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.
- C. The Owner's Representative will designate one of the conference participants to record the proceedings and promptly distribute them to the participants for record.
- D. The intent of the conference is to resolve issues affecting the installation and performance of roofing work. Do not proceed with roofing work until such issues are resolved to the satisfaction of the owner and [architect and/or engineer] of record. This shall not be construed as interference with the progress of Work on the part of the owner or [architect or engineer] of Record.

1.9 MANUFACTURER'S INSPECTIONS

- A. When the Project is in progress, a full-time employee of the roofing system manufacturer must provide the following:
1. Report progress and quality of the work as observed. Progress reports must be published to an online system as referenced in Section 1.4.
 2. Provide periodic (3, 4, or 5 days per week) roofing installation inspections: Inspections must include; photographic documentation of work in-progress and written statements of compliance with details/shop drawings.
 3. Report to the owner, architect and/or engineer in writing any failure or refusal of the contractor to correct unacceptable practices called to the contractor's attention.
 4. Confirm after project completion that the manufacturer has observed no application procedures in conflict with the specifications other than those that may have been previously reported and corrected.

1.10 WARRANTY

- A. Upon completion of installation, and acceptance by the owner and architect and/or engineer, the manufacturer will supply to the owner the specified warranty.
- B. Installer will submit a two (2)- year workmanship warranty to the membrane manufacturer with a copy directly to the owner.

- C. The roofing system manufacturer must have been in continuous business operation for a period of time at least as long as the length of the roof system warranty provided for this project.

1.11 DESIGN AND PERFORMANCE CRITERIA

- A. Uniform Wind Uplift Load Capacity (required for each roof section)
 - 1. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria.
Attachment shall be installed exactly as given in Part 3.
 - a. Design Code: ASCE 7-05 16, Method 2 for Components and Cladding.
 - b. Category III Building with an Importance Factor of 1.0
 - c. Wind Speed: 120 mph
 - d. Ultimate Pullout Value: Reference Wind Up-lift
 - e. Exposure Category: B
 - f. Design Roof Height: 15 feet.
 - g. Minimum Building Width: 12 feet.
 - h. Roof Pitch: 1/2:12 inches per foot.
- B. Snow Load: 20 psf.
- C. Live Load: 20 psf, or not to exceed original building design.
- D. Dead Load: Loading of the roof structure, due to tear off of existing and/or installation of new roofing materials shall not exceed the present loading due to weight of the existing roofing system by more than 1 psf.
- E. Drainage Calculations: Drainage shall be calculated for all roof areas to determine suitability of all plumbing and gutter accommodations are sized appropriately to manage storm water runoff.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 EXECUTION, GENERAL

- A. Comply with requirements of related Division 07 Section.

3.2 GENERAL INSTALLATION REQUIREMENTS

- A. Cooperate with manufacturer, inspection and test agencies engaged or required to perform services in connection with installing the roof system.
- B. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.

3.3 FIELD QUALITY CONTROL

- A. Roofing Manufacturer Representative shall perform field inspection as specified in Article titled: MANUFACTURER'S INSPECTIONS above. Inspections must include photographic documentation of installation progress, weather conditions, and personnel on the project at the time of inspection.
- B. Correct defects or irregularities discovered during field inspection. Issues deemed defective must be re-inspected and determined suitable by the roofing manufacturer.

- C. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system. A copy of the specification shall also be on site at all times.
- D. Frequent progress meetings shall be conducted during the performance of roof system installation and must be attended by the owner, architect or engineer, roofing system manufacturer's full time employee, and other representatives directly concerned with performance of the work.

3.4 FINAL INSPECTION

- A. At the completion of the roofing installation and associated work, meet with contractor, architect or engineer, installer, installer of associated work, owner, roofing system manufacturer's representative, and other representatives directly concerned with performance of roofing system.
- B. Walk roof surface areas of the building, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. List all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. Notify the Owner upon completion of corrections.
- D. The roofing system manufacturer reserves the right to request a thermographic scan of the roof during final inspection to determine if any damp or wet materials have been installed. The thermographic scan shall be provided by the roofing contractor.
- E. If core cuts verify the presence of damp or wet materials, the roofing contractor shall be required to replace the damaged areas at his own expense.
- F. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.
- G. Immediately correct roof leakage during construction. If the contractor does not respond within twenty four (24) hours, the owner may exercise right to correct the Work under the terms of the Conditions of the Contract.

END OF SECTION

SECTION 07311 - ASPHALT SHINGLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Asphalt shingles.
 - 2. Manufacturer's recommended underlayment.
 - 3. Self-adhering sheet underlayment.
 - 4. Ridge vents.
- B. Related Sections include the following:
 - 1. Division 6 Section "Sheathing" for roof deck wood structural panels.
 - 2. Division 7 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings and counter-flashings not part of this Section.

1.3 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of asphalt shingle, ridge and hip cap shingles ridge vent and exposed valley lining indicated.
 - 1. Include similar Samples of trim and accessories involving color selection.
- C. Samples for Verification: For the following products, of sizes indicated, to verify color selected.
 - 1. Asphalt Shingle: Full-size asphalt shingle strip.
 - 2. Ridge and Hip Cap Shingles: Full-size ridge and hip cap asphalt shingle.
 - 3. Ridge Vent: 12-inch- (300-mm-) long Sample.
 - 4. Exposed Valley Lining: 12 inches (300 mm) square.

5. Self-Adhering Underlayment: 12 inches (300 mm) square.

- D. Qualification Data: For Installer, including certificate signed by asphalt shingle manufacturer stating that Installer is approved, authorized, or licensed to install roofing system indicated.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for asphalt shingles.
- F. Maintenance Data: For asphalt shingles to include in maintenance manuals.
- G. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain specified products as required from warranting manufacturer as outlined in the specifications.
- B. Fire-Test-Response Characteristics: Provide asphalt shingle and related roofing materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108 or UL 790, for application and roof slopes indicated.
- C. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."

D. MANUFACTURER'S INSPECTIONS

- A. When the project is in progress, the base sheet system manufacturer will provide the following:
 - 1. Keep the Owner informed as to the progress and quality of the work as observed.
 - 2. Provide daily job site inspections during installation of the shingle roof system. Provide daily emailed progress reports to the Owner outlining the day's roof renovation progress.
 - 3. Report to the Owner in writing any failure or refusal of the Contractor to correct unacceptable practices called to the Contractor's attention.
 - 4. Confirm after completion that manufacturer has observed no applications procedures in conflict with the specifications other than those that may have been previously reported and corrected.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated, weathertight location according to asphalt shingle manufacturer's written instructions. Store underlayment rolls on end on pallets or other raised surfaces. Do not double-stack rolls.

1. Handle, store, and place roofing materials in a manner to avoid significant or permanent damage to roof deck or structural supporting members.
- B. Protect unused underlayment from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.

1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit asphalt shingle roofing to be performed according to manufacturer's written instructions and warranty requirements.
 1. Install self-adhering sheet under-layment within the range of ambient and substrate temperatures recommended by manufacturer.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials or workmanship within specified warranty period. Materials failures include manufacturing defects and failure of asphalt shingles to self-seal after a reasonable time.
 1. Material Warranty Period: 30 years from date of Substantial Completion, prorated, with first 5 years non-prorated.
 2. Wind-Speed Warranty Period: Asphalt shingles will resist blow-off or damage caused by wind speeds up to 80 mph for 10 years from date of Substantial Completion.
 3. Algae-Discoloration Warranty Period: Asphalt shingles will not discolor 10 years from date of Substantial Completion.
- B. Special Project Warranty: Roofing Installer's warranty, on warranty form at end of this Section, signed by roofing Installer, covering Work of this Section, in which roofing Installer agrees to repair or replace components of asphalt shingle roofing that fail in materials or workmanship within the following warranty period:
 1. Warranty Period: two years from date of Substantial Completion.

1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Asphalt Shingles: 100 sq. ft of each type, in unbroken bundles.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.

2.2 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Laminated-Strip Asphalt Shingles: ASTM D 3462, laminated, multi-ply overlay construction, glass-fiber reinforced, mineral-granule surfaced, and self-sealing.

1. Available Products:
 - a. GAF Materials Corporation - Timber-line
 - b. Certainteed
 - c. Owens Corning
2. Butt Edge: Straight cut.
3. Strip Size: Manufacturer's standard.
4. Algae Resistance: Granules treated to resist algae discoloration.
5. Color and Blends: Match Architect's samples.

- B. Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles.

2.3 UNDERLAYMENT MATERIALS

- A. Self-Adhering Sheet Underlayment: ASTM D 1970, minimum of 60-mil-thick sheet; glass-fiber-mat-reinforced, SBR-modified asphalt; with release paper backing; cold applied. Provide primer for adjoining concrete or masonry surfaces to receive underlayment.

1. As manufactured by:
 - a. The Garland Company, Inc. – R-Mer Seal

2.4 RIDGE VENTS

- A. Flexible Ridge Vent: Manufacturer's standard compression-resisting, three-dimensional open-nylon or polyester-mat filter bonded to a nonwoven, nonwicking geotextile fabric cover.

1. Available Products:
 - a. GAF Materials Corporation; Cobra.
 - b. Certainteed
 - c. Owens Corning
2. Minimum Net Free Area: 4" min.
3. Width: Length of ridge.
4. Thickness: 1-1/2" min. thickness.

2.5 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized steel wire shingle nails, minimum 0.120-inch- (3-mm-) diameter, barbed shank, sharp-pointed, with a minimum 3/8-inch- (9.5-mm-) diameter flat head and of sufficient length to penetrate 3/4 inch (19 mm) into solid wood decking or extend at least 1/8 inch (3 mm) through OSB or plywood sheathing.
 - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
- C. Underlayment Nails: Aluminum, stainless-steel with low profile capped heads or disc caps, 1-inch (25-mm) minimum diameter.

2.6 METAL FLASHING AND TRIM

- A. Sheet Metal Flashing and Trim: Comply with requirements in Division 7 Section "Sheet Metal Flashing and Trim."
 - 1. Sheet Metal: Kynar 500 per Section 07600.
- B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item.
 - 1. Step Flashings: Fabricate with a headlap of 2 inches (50 mm) and a minimum extension of 5 inches (125 mm) over the underlying asphalt shingle and up the vertical surface.
 - 2. Cricket Flashings: Fabricate with concealed flange extending a minimum 24 inches (600 mm) beneath upslope asphalt shingles and 6 inches (150 mm) above the roof plane.
 - 3. Open Valley Flashings: Fabricate in lengths not exceeding [10 feet (3 m)] with 1-inch- (25-mm-) high inverted-V profile at center of valley and equal flange widths of 10 inches (250 mm).
 - 4. Drip Edges: Fabricate in lengths not exceeding [10 feet (3 m)] with 2-inch (50-mm) roof deck flange and 1-1/2-inch (38-mm) fascia flange with 3/8-inch (9.6-mm) drip at lower edge.
- C. Vent Pipe Flashings: ASTM B 749, Type L51121, at least 1/16 inch (1.6 mm) thick. Provide lead sleeve sized to slip over and turn down into pipe, soldered to skirt at slope of roof and extending at least 4 inches (100 mm) from pipe onto roof.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.

1. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and penetrations through asphalt shingles.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. Self-Adhering Sheet Underlayment: Install self-adhering sheet underlayment, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install over entire deck surface, lapped in direction to shed water. Lap sides not less than 3-1/2 inches (89 mm). Lap ends not less than 6 inches (150 mm) staggered 24 inches (600 mm) between courses. Roll laps with roller. Cover underlayment within seven days.
1. Prepare substrate for underlayment installation; ensure a smooth, clean surface.
 2. Install specified underlayment throughout all sections including the field. Install in a shingle fashion from eave to ridge with appropriate overlap.

3.3 METAL FLASHING INSTALLATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Division 7 Section "Sheet Metal Flashing and Trim."
1. Install metal flashings according to recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Apron Flashings: Extend lower flange over and beyond each side of downslope asphalt shingles and up the vertical surface.
- C. Step Flashings: Install with a headlap of 2 inches and extend over the underlying asphalt shingle and up the vertical surface. Fasten to roof deck only.
- D. Cricket Flashings: Install against the roof-penetrating element extending concealed flange beneath upslope asphalt shingles and beyond each side.
- E. Open Valley Flashings: Install centrally in valleys, lapping ends at least 8 inches in direction to shed water. Fasten upper end of each length to roof deck beneath overlap.
1. Secure hemmed flange edges into metal cleats spaced 2 inches apart and fastened to roof deck.
- F. Rake Drip Edges: Install rake drip edge flashings over underlayment and fasten to roof deck.
- G. Eave Drip Edges: Install eave drip edge flashings below underlayment and fasten to roof sheathing.

- H. Pipe Flashings: Form flashing around pipe penetrations and asphalt shingles. Fasten and seal to asphalt shingles as recommended by manufacturer.

3.4 ASPHALT SHINGLE INSTALLATION

- A. Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
- B. Install starter strip along lowest roof edge, consisting of an asphalt shingle strip with tabs removed with self-sealing strip face up at roof edge.
 - 1. Extend asphalt shingles 1/2 inch over fascia at eaves and rakes.
 - 2. Install starter strip along rake edge.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- D. Fasten asphalt shingle strips with a minimum of five roofing nails located according to manufacturer's written instructions.
 - 1. When ambient temperature during installation is below 50 deg F, seal asphalt shingles with asphalt roofing cement spots.
- E. Closed-Cut Valleys: Extend asphalt shingle strips from one side of valley 12 inches beyond center of valley. Use one-piece shingle strips without joints in the valley. Fasten with extra nail in upper end of shingle. Install asphalt shingle courses from other side of valley and cut back to a straight line 2 inches short of valley centerline. Trim upper concealed corners of cut-back shingle strips.
 - 1. Do not nail asphalt shingles within 6 inches of valley center.
 - 2. Set trimmed, concealed-corner asphalt shingles in a 3-inch-wide bed of asphalt roofing cement.
- F. Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's written instructions. Fasten with roofing nails of sufficient length to penetrate sheathing.
- G. Ridge and Hip Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.
 - 1. Fasten ridge cap asphalt shingles to cover ridge vent without obstructing airflow.

END OF SECTION

SECTION 07 52 00
MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cold Applied 2-Ply Asphalt Roofing

1.2 REFERENCES

- A. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
- B. ASTM D 312 - Standard Specification for Asphalt used in Roofing.
- C. ASTM D 451 - Standard Test Method for Sieve Analysis of Granular Mineral Surfacing for Asphalt Roofing Products.
- D. ASTM D 1079 Standard Terminology Relating to Roofing, Waterproofing and Bituminous Materials.
- E. ASTM D 1863 Standard Specification for Mineral Aggregate Used as a Protective Coating for Roofing.
- F. ASTM D 2824 Standard Specification for Aluminum-Pigmented Asphalt Roof Coating.
- G. ASTM D 4586 Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- H. ASTM D 5147 Standard Test Method for Sampling and Testing Modified Bituminous Sheet Materials.
- I. ASTM D 6162 Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
- J. Used in Steep-Slope Roofing.
- K. ASTM E 108 - Standard Test Methods for Fire Test of Roof Coverings.
- L. National Roofing Contractors Association (NRCA): Roofing and Waterproofing Manual.
- M. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.
- N. Underwriters Laboratories, Inc. (UL): Fire Hazard Classifications.
- O. Warnock Hersey (WH): Fire Hazard Classifications.
- P. ANSI-SPRI ES-1 Wind Design Standard for Edge Systems used with Low Slope Roofing Systems.
- Q. ASCE 7, Minimum Design Loads for Buildings and Other Structures
- R. UL - Fire Resistance Directory.
- S. FM Approvals - Roof Coverings and/or RoofNav assembly database.

1.3 DESIGN / PERFORMANCE REQUIREMENTS

- A. Perform work in accordance with all federal, state and local codes.
- B. Exterior Fire Test Exposure: Roof system shall achieve a UL, FM or WH Class rating for roof slopes indicated on the Drawings as follows:
 - 1. Underwriters Laboratory Class A Rating.
- C. Design Requirements:
 - 1. Uniform Wind Uplift Load Capacity
 - a. Installed roof system shall withstand negative (uplift) design wind loading pressures complying with the following criteria.
 - 1) Design Code: ASCE 7, Method 2 for Components and Cladding.
 - 2) Importance Category:
 - a) III.
 - 3) Importance Factor of:
 - a) 1.15
 - 4) Wind Speed: 120 mph
 - 5) Ultimate Pullout Value: Reference Wind Up-lift Calc.
 - 6) Exposure Category:
 - a) B.
 - 7) Design Roof Height: 15 feet.
 - 8) Minimum Building Width: 12 feet.
 - 9) Roof Pitch: 1/4 :12.
 - 2. Live Load: 20 psf, or not to exceed original building design.
 - 3. Dead Load:
 - a. Installation of new roofing materials shall not exceed the dead load capacity of the existing roof structure.
- D. Roof System membranes containing recycled or bio-based materials shall be third party certified through UL Environment.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation instructions.
- C. Shop Drawings: Submit shop drawings including installation details of roofing, flashing, fastening, insulation and vapor barrier, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
- D. Design Pressure Calculations: Submit design pressure calculations for the roof area in accordance with ASCE 7 and local Building Code requirements. Include a roof system attachment analysis report, certifying the system's compliance with applicable wind load requirements before Work begins.
- E. Verification Samples: For each modified bituminous membrane ply product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Provide to certify products meet or exceed specified requirements.

- G. Test Reports: Submit test reports, prepared by an independent testing agency, for all modified bituminous sheet roofing, indicating compliance with ASTM D5147.
- H. Manufacturer's Fire Compliance Certificate: Certify that the roof system furnished is approved by Factory Mutual (FM), Underwriters Laboratories (UL), Warnock Hersey (WH) or approved third party testing facility in accordance with ASTM E108, Class A for external fire and meets local or nationally recognized building codes.
- I. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified with documented ISO 9001 certification and minimum of twelve years of documented experience and must not have been in Chapter 11 bankruptcy during the last five years.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Garland Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

1.6 PRE-INSTALLATION MEETINGS

- A. Convene minimum two weeks prior to commencing Work of this section.
- B. Review installation procedures and coordination required with related Work.
- C. Inspect and make notes of job conditions prior to installation:
 - 1. Record minutes of the conference and provide copies to all parties present.
 - 2. Identify all outstanding issues in writing designating the responsible party for follow-up action and the timetable for completion.
 - 3. Installation of roofing system shall not begin until all outstanding issues are resolved to the satisfaction of the Architect.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.

- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above ground level and covered with "breathable" tarpaulins.
- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface except store KEE-Stone FB 60 rolls flat on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C) minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.
- E. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
- F. Adhesive storage shall be between the range of above 50 degree F (10 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.

1.8 COORDINATION

- A. Coordinate Work with installing associated metal flashings as work of this section proceeds.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.10 WARRANTY

- A. Upon completion of the work, provide the Manufacturer's written and signed NDL Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
 - 1. Warranty Period:
 - a. 30 years from date of acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Garland Company, Inc. (The); 3800 E. 91st St., Cleveland, OH 44105. ASD. Toll Free: 800-321-9336. Phone: 216-641-7500. Fax: 216-641-0633. Web Site: www.garlandco.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
- C. The Products specified are intended and the Standard of Quality for the products required for this project. If other products are proposed the bidder must disclose in the bid the manufacturer and the products that they intend to use on the Project. If no manufacturer and products are listed, the bid may be accepted only with the use of products specified.
 - 1. Bidder will not be allowed to change materials after the bid opening date.
 - 2. If alternate products are included in the bid, the products must be equal to or exceed the products specified. Supporting technical data shall be submitted to the Architect/

- Owner for approval prior to acceptance.
3. In making a request for substitution, the Bidder/Roofing Contractor represents that it has:
 - a. Personally investigated the proposed product or method, and determined that it is equal or superior in all respects to that specified.
 - b. Will provide the same guarantee for substitution as for the product and method specified.
 - c. Will coordinate installation of accepted substitution in work, making such changes as may be required for work to be completed in all respects.
 - d. Will waive all claims for additional cost related to substitution, which consequently become apparent.
 - e. Cost data is complete and includes all related cost under his/her contract or other contracts, which may be affected by the substitution.
 - f. Will reimburse the Owner for all redesign cost by the Architect for accommodation of the substitution.
 4. Architect/ Owner reserves the right to be the final authority on the acceptance or rejection of any or all bids, proposed alternate roofing systems or materials that has met ALL specified requirement criteria.
 5. Failure to submit substitution package, or any portion thereof requested, will result in immediate disqualification and consideration for that particular contractors request for manufacturer substitution.

2.2 COLD APPLIED 2-PLY ROOF SYSTEM - STRESSPLY, OPTIMAX, OR VERSIPLY

- A. Base (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive:
 1. StressBase 80:
- B. Modified Cap (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive:
 1. StressPly:
- C. Interply Adhesive: (1 and 2)
 1. Weatherking Plus WC:
- D. Flashing Base Ply: One ply bonded to the prepared substrate with Interply Adhesive:
 1. StressBase 80:
- E. Flashing Cap (Ply) Sheet: One ply bonded to the prepared substrate with Interply Adhesive:
 1. StressPly FR Mineral:
- F. Flashing Ply Adhesive:
 1. Weatherking Flashing Adhesive:
- G. Surfacing: Requires 30 day wait before applying.
 1. Flood Coat/Aggregate:
 - a. Weatherscreen:
 2. Surface Coatings:
 - a. Garla-Brite:

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Inspect and approve the deck condition, slopes and fastener backing if applicable, parapet walls, expansion joints, roof drains, stack vents, vent outlets, nailers and surfaces and elements.

- C. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
- D. If substrate preparation and other conditions are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. General: Clean surfaces thoroughly prior to installation.
 - 1. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
 - 2. Fill substrate surface voids that are greater than 1/4 inch wide with an acceptable fill material.
 - 3. Roof surface to receive roofing system shall be smooth, clean, free from loose gravel, dirt and debris, dry and structurally sound.
 - 4. Wherever necessary, all surfaces to receive roofing materials shall be power broom and vacuumed to remove debris and loose matter prior to starting work.
 - 5. Do not apply roofing during inclement weather. Do not apply roofing membrane to damp, frozen, dirty, or dusty surfaces.
 - 6. Fasteners and plates for fastening components mechanically to the substrate shall provide a minimum pull-out capacity of 300 lbs. (136 k) per fastener. Base or ply sheets attached with cap nails require a minimum pullout capacity of 40 lb. per nail.
 - 7. Prime decks where required, in accordance with requirements and recommendations of the primer and deck manufacturer.

3.3 INSTALLATION - GENERAL

- A. Install modified bitumen membranes and flashings in accordance with manufacturer's instructions and with the recommendations provided by the National Roofing Contractors Association's Roofing & Waterproofing Manual, the Asphalt Roofing Manufacturers Association, and applicable codes.
- B. General: Avoid installation of modified bitumen membranes at temperatures lower than 40-45 degrees F. When work at such temperatures unavoidable use the following precautions:
 - 1. Take extra care during cold weather installation and when ambient temperatures are affected by wind or humidity, to ensure adequate bonding is achieved between the surfaces to be joined. Use extra care at material seam welds and where adhesion of the applied product to the appropriately prepared substrate as the substrate can be affected by such temperature constraints as well.
 - 2. Unrolling of cold materials, under low ambient conditions must be avoided to prevent the likelihood of unnecessary stress cracking. Rolls must be at least 40 degrees F at the time of application. If the membrane roll becomes stiff or difficult to install, it must be replaced with roll from a heated storage area.
- C. Commence installation of the roofing system at the lowest point of the roof (or roof area), working up the slope toward the highest point. Lap sheets shingle fashion so as to constantly shed water
- D. All slopes greater than 2:12 require back-nailing to prevent slippage of the ply sheets. Use ring or spiral-shank 1 inch cap nails, or screws and plates at a rate of 1 fastener per ply (including the membrane) at each insulation stop. Place insulation stops at 16 ft o.c. for slopes less than 3:12 and 4 feet o.c. for slopes greater than 3:12. On non-insulated systems, nail each ply directly into the deck at the rate specified above. When slope exceeds 2:12, install all plies parallel to the slope (strapping) to facilitate backnailing. Install 4 additional fasteners at the upper edge of the membrane when strapping the plies.

3.4 INSTALLATION COLD APPLIED ROOF SYSTEM

- A. Base Ply: Cut base ply sheets into 18 foot lengths and allow plies to relax before installing. Install base sheet in Interply Adhesive: applied at the rate required by the manufacturer. Shingle base sheets uniformly to achieve one ply throughout over the prepared substrate. Shingle in proper direction to shed water on each large area of roofing.
1. Lap ply sheet ends 8 inches. Stagger end laps 12 inches minimum.
 2. Solidly bond to the substrate and adjacent ply with specified cold adhesive at the rate of 2 to 2-1/2 gallons per 100 square feet.
 3. Roll must push a puddle of adhesive in front of it with adhesive slightly visible at all side laps. Use care to eliminate air entrapment under the membrane.
 4. Install subsequent rolls of modified across the roof as above with a minimum of 4 inch side laps and 8 inch staggered end laps. Lay modified membrane in the same direction as the underlayers but the laps shall not coincide with the laps of the base layers.
 5. Extend plies 2 inches beyond top edges of cants at wall and projection bases.
 6. Install base flashing ply to all perimeter and projection details.
 7. Allow the one ply of base sheet to cure at least 30 minutes before installing the modified membrane. However, the modified membrane must be installed the same day as the base plies.
- B. Modified Cap Ply(s): Cut cap ply sheets into 18 foot lengths and allow plies to relax before installing. Install in interplay adhesive applied at the rate required by the manufacturer. Shingle sheets uniformly over the prepared substrate to achieve the number of plies specified. Shingle in proper direction to shed water on each large area of roofing.
1. Lap ply sheet ends 8 inches. Stagger end laps 12 inches minimum.
 2. Solidly bond to the base layers with specified cold adhesive at the rate of 2 to 2-1/2 gallons per 100 square feet.
 3. Roll must push a puddle of adhesive in front of it with adhesive slightly visible at all side laps. Care should be taken to eliminate air entrapment under the membrane.
 4. Install subsequent rolls of modified across the roof as above with a minimum of 4 inch side laps and 8 inch staggered end laps. Lay modified membrane in the same direction as the underlayers but the laps shall not coincide with the laps of the base layers.
 5. Allow cold adhesive to set for 5 to 10 minutes before installing the top layer of modified membrane.
 6. Extend membrane 2 inches beyond top edge of all cants in full moppings of the cold adhesive as shown on the Drawings.
- C. Fibrous Cant Strips: Provide non-combustible perlite or glass fiber cant strips at all wall/curb detail treatments where angle changes are greater than 45 degrees. Cant may be set in approved cold adhesives, hot asphalt or mechanically attached with approved plates and fasteners.
- D. Wood Blocking, Nailers and Cant Strips: Provide wood blocking, nailers and cant strips as specified in Section 06 11 00.
1. Provide nailers at all roof perimeters and penetrations for fastening membrane flashings and sheet metal components.
 2. Wood nailers should match the height of any insulation, providing a smooth and even transition between flashing and insulation areas.
 3. Nailer lengths should be spaced with a minimum 1/8 inch gap for expansion and contraction between each length or change of direction.
 4. Nailers and flashings should be fastened in accordance with Factory Mutual "Loss Prevention Data Sheet 1- 49, Perimeter Flashing" and be designed to be capable of resisting a minimum force of 200 lbs/lineal foot in any direction.
- E. Metal Work: Provide metal flashings, counter flashings, parapet coping caps and thru-wall flashings as specified in Section 07 62 00 or Section 07 71 23. Install in accordance with the

SMACNA "Architectural Sheet Metal Manual" or the NRCA Roofing Waterproofing manual.

- F. Termination Bar: Provide a metal termination bar or approved top edge securement at the terminus of all flashing sheets at walls and curbs. Fasten the bar a minimum of 8 inches (203 mm) o/c to achieve constant compression. Provide suitable, sealant at the top edge if required.
- G. Flashing Base Ply: Install flashing sheets by the same application method used for the base ply.
 - 1. Seal curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit conditions to exist that will allow moisture to enter behind, around or under the roof or flashing membrane.
 - 2. Prepare all walls, penetrations, expansion joints and where shown on the Drawings to be flashed with required primer at the rate of 100 square feet per gallon. Allow primer to dry tack free.
 - 3. Adhere to the underlying base ply with specified flashing ply adhesive unless otherwise specified. Nail off at a minimum of 8 inches (203 mm) o.c. from the finished roof at all vertical surfaces.
 - 4. Solidly adhere the entire flashing ply to the substrate. Secure the tops of all flashings that are not run up and over curb through termination bar fastened at 6 inches (152 mm) O.C. and sealed at top.
 - 5. Seal all vertical laps of flashing ply with a three-course application of trowel-grade mastic and fiberglass mesh.
 - 6. Coordinate counter flashing, cap flashings, expansion joints and similar work with modified bitumen roofing work as specified.
 - 7. Coordinate roof accessories, miscellaneous sheet metal accessory items, including piping vents and other devices with the roofing system work.
 - 8. Secure the top edge of the flashing sheet using a termination bar only when the wall surface above is waterproofed, or nailed 4 inches on center and covered with an acceptable counter flashing.
- H. Flood Coat/Aggregate:
 - 1. Install after cap sheets and modified flashing, tests, repairs and corrective actions have been completed and approved.
 - 2. Apply flood coat materials in the quantities recommended by the manufacturer.
 - 3. Uniformly embed aggregate in the flood coat of cold adhesive at a rate recommended by the manufacturer.
 - 4. Aggregate must be dry and placed in a manner required to form a compact, embedded overlay. To aid in embedment, lightly roll aggregate.
- I. Flashing Cap Ply:
 - 1. Seal curb, wall and parapet flashings with an application of mastic and mesh on a daily basis. Do not permit conditions to exist that will allow moisture to enter behind, around or under the roof or flashing membrane.
 - 2. Prepare all walls, penetrations, expansion joints and where shown on the Drawings to be flashed with required primer at the rate of 100 square feet per gallon. Allow primer to dry tack free.
 - 3. Adhere to the underlying base flashing ply with specified flashing ply adhesive unless otherwise specified. Nail off at a minimum of 8 inches (203 mm) o.c. from the finished roof at all vertical surfaces.
 - 4. Coordinate counter flashing, cap flashings, expansion joints and similar work with modified bitumen roofing work as specified.
 - 5. Coordinate roof accessories, miscellaneous sheet metal accessory items with the roofing system work.
 - 6. All stripping shall be installed prior to flashing cap sheet installation.
 - 7. Heat and scrape granules when welding or adhering at cut areas and seams to

- granular surfaces at all flashings.
- 8. Secure the top edge of the flashing sheet using a termination bar only when the wall surface above is waterproofed, or nailed 4 inches on center and covered with an acceptable counter flashing.
- J. Surface Coatings: Apply roof coatings in strict conformance with the manufacturer's recommended procedures.
- K. Roof Walkways: Provide walkways in areas indicated on the Drawings.

3.5 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove asphalt markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.6 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

3.7 FIELD QUALITY CONTROL

- A. Inspection: Provide manufacturer's field observations at start-up and at intervals of approximately 30 percent, 60 percent and 90 percent completion. Provide a final inspection upon completion of the Work.
 - 1. Warranty shall be issued upon manufacturer's acceptance of the installation.
 - 2. Field observations shall be performed by a Sales Representative employed full-time by the manufacturer and whose primary job description is to assist, inspect and approve membrane installations for the manufacturer.
 - 3. Provide observation reports from the Sales Representative indicating procedures followed, weather conditions and any discrepancies found during inspection.
 - 4. Provide a final report from the Sales Representative, certifying that the roofing system has been satisfactorily installed according to the project specifications, approved details and good general roofing practice.

3.8 SCHEDULES

- A. Base (Ply) Sheet:
 - 1. StressBase 80: 80 mil SBS (Styrene-Butadiene-Styrene) rubber modified roofing base sheet reinforced with a fiberglass scrim, performance requirements according to ASTM D 5147.
 - a. Tensile Strength, ASTM D 5147
 - 1) 2 in/min. @ 0 +/- 3.6 deg. F MD 100 lbf/in XD 100 lbf/in

- 2) 50mm/min. @ -17.78 +/- 2 deg. C MD 17.5 kN/m XD 17.5 kN/m
 - b. Tear Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 110 lbf XD 100 lbf
 - 2) 50mm/min. @ 23 +/- 2 deg. C MD 489 N XD 444 N
 - c. Elongation at Maximum Tensile, ASTM D 5147
 - 1) 2 in/min. @ 0 +/- 3.6 deg. F MD 4 % XD 4 %
 - 2) 50mm/min @ -17.78 +/- 2 deg. C MD 4 % XD 4 %
 - d. Low Temperature Flexibility, ASTM D 5147, Passes -40 deg. F (-40 deg. C)
- B. Thermoplastic/Modified Cap (Ply) Sheet:
 - 1. StressPly: 80 mil SBS (Styrene-Butadiene-Styrene) rubber modified roofing membrane with dual fiberglass reinforced scrim and superior low temperature capabilities. ASTM D 6163, Type III Grade S
 - a. Tensile Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 225 lbf/in XD 225 lbf/in
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 39.0 kN/m XD 39 kN/m
 - b. Tear Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 300 lbf XD 300 lbf
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 1335 N XD 1335 N
 - c. Elongation at Maximum Tensile, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 6% XD 7%
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 6% XD 7%
 - d. Low Temperature Flexibility, ASTM D 5147, Passes -50 deg. F (-46 deg. C)
- C. Interply Adhesive:
 - 1. Weatherking Plus WC: Rubberized, polymer modified cold process asphalt roofing bitumen V.O.C. compliant ASTM D 3019. Performance Requirements:
 - a. Non-Volatile Content ASTM D 4479 78%
 - b. Density ASTM D1475 9.0 lbs./gal.
 - c. Viscosity Stormer ASTM D562 900-1100 grams
 - d. Flash Point ASTM D 93 100 deg. F min. (37 deg. C)
 - e. Slope: up to 2:12
 - f. V.O.C. ASTM D 3960 Less than 250 g/l
 - g. Flash Point ASTM D 93 105 deg. F
 - h. Slope maximum 1:12
- D. Flashing Base Ply:
 - 1. StressBase 80: 80 mil SBS (Styrene-Butadiene-Styrene) rubber modified roofing base sheet reinforced with a fiberglass scrim, performance requirements according to ASTM D 5147.
 - a. Tensile Strength, ASTM D 5147
 - 1) 2 in/min. @ 0 +/- 3.6 deg. F MD 100 lbf/in XD 100 lbf/in
 - 2) 50 mm/min. @ -17.78 +/- 2 deg. C MD 17.5 kN/m XD 17.5 kN/m
 - b. Tear Strength, ASTM D 5147
 - 1) 2 in/min. @ 73.4 +/- 3.6 deg. F MD 110 lbf XD 100 lbf
 - 2) 50 mm/min. @ 23 +/- 2 deg. C MD 489 N XD 444 N
 - c. Elongation at Maximum Tensile, ASTM D 5147
 - 1) 2 in/min. @ 0 +/- 3.6 deg. F MD 4 % XD 4 %
 - 2) 50 mm/min. @ -17.78 +/- 2 deg. C MD 4 % XD 4 %
 - d. Low Temperature Flexibility, ASTM D 5147
 - 1) Passes -40 deg. F (-40 deg. C)
- E. Flashing Ply Adhesive:
 - 1. Weatherking Flashing Adhesive: Brush grade flashing adhesive.
 - a. Non-Volatile Content ASTM D 4479 70 min.
 - b. Density ASTM D 1475 8.6 lbs./gal. (1kg/l)

- c. Flash Point ASTM D 93 100 deg. F (37 deg. C)

F. Surfacing:

1. Flood Coat/Aggregate:

- a. Weatherscreen: Asphalt protective roof coating, Weatherscreen; heavy-bodied, fiber reinforced, cold process roof coating having the following characteristics:

- 1) Weight/Gallon 9.1 lbs./gal. (1.1 g/cm³)
- 2) Non-Volatile % (ASTM D 4479) Typical 75
- 3) Viscosity Brookfield RVT;
- 4) Spindle #5; 10RPM @ 71 deg. F 20,000-25,000 cPs
- 5) Roofing Aggregate: ASTM D 1863
 - a) Slag.
 - b) Pea gravel.
 - c) White spar.

2. Flashing Cap (Ply) Sheet:

- a. StressPly FR Mineral: 145 mil SBS (Styrene-Butadiene-Styrene) mineral surfaced, rubber modified roofing membrane with fire retardant characteristics, and dual fiberglass reinforced scrim. ASTM D 6163, Type III Grade G

- 1) Tensile Strength, ASTM D 5147
 - a) 2 in./min. @ 73.4 +/- 3.6 deg. F MD 225 lbf/in XD 225 lbf/in
 - b) 50 mm/min. @ 23 +/- 2 deg. C MD 39.0 kN/m XD 39.0 kN/m
- 2) Tear Strength, ASTM D 5147
 - a) 2 in./min. @ 73.4 +/- 3.6 deg. F MD 300 lbf XD 300 lbf
 - b) (50 mm/min. @ 23 +/- 2 deg. C MD 1335 N XD 1335 N
- 3) Elongation at Maximum Tensile, ASTM D 5147
 - a) 2 in./min. @ 73.4 +/- 3.6 deg. F MD 6% XD 8%
 - b) 50 mm/min. @ 23 +/- 2 deg. C MD 6% XD 8%
- 4) Low Temperature Flexibility, ASTM D 5147, Passes -15 deg. F (-26 deg. C)

3. Surface Coatings:

- a. Surfacing:

- 1) Garla-Brite: ASTM D 2824 aluminum coating non-fibered aluminum roof coating non-fibered aluminum roof coating having the following characteristics:
 - a) Flash Point 103 deg. F (39 deg. C) min.
 - b) Weight/Gallon 7.9 lbs./gal. (1.0 g/cm³)

END OF SECTION

SECTION 07 56 00 - FLUID APPLIED ROOFING RESTORATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal Surface Roof Restoration

1.2 REFERENCES

- A. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- B. SMACNA Architectural Sheet Metal Manual.
- C. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.

1.3 SYSTEM DESCRIPTION

- A. Metal Surface Roof Restoration: Renovation work includes:
 - 1. Surface preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
 - 2. Metal Flashings: Repair/Replace metal flashings, pitch pockets, etc.
 - 3. Primer: Prime entire roof surface.
 - 4. Base coat: Apply base coat and fabric on seams and around penetrations/let cure/Apply base coat over the entire roof surface/let cure.
 - 5. Topcoat: Apply coating over entire roof surface.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Submit shop drawings including installation details of fluid applied roofing and flashing prior to job start.
- D. Verification Samples: For each product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, and color.
- E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- F. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic inspection and maintenance of all completed roofing work. Provide product warranty executed by the manufacturer. Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with manufacturer's current Application and Installation Guidelines and the NRCA Roofing and Waterproofing Manual.

- B. Manufacturer Qualifications: Manufacturer: Company specializing in manufacturing products specified in this section with documented ISO 9001 certification and minimum twelve years and experience.
- C. Installer Qualifications: Company specializing in performing Work of this section with minimum five years documented experience and a certified Pre-Approved Garland Contractor.
- D. Installer's Field Supervision: Maintain a full-time Supervisor/Foreman on job site during all phases of roofing work while roofing work is in progress.
- E. Product Certification: Provide manufacturer's certification that materials are manufactured in the United States and conform to requirements specified herein, are chemically and physically compatible with each other, and are suitable for inclusion within the total roof system specified herein.
- F. Source Limitations: Obtain all components of roof system from a single manufacturer. Secondary products that are required shall be recommended and approved in writing by the roofing system Manufacturer. Upon request of the Architect or Owner, submit Manufacturer's written approval of secondary components in list form, signed by an authorized agent of the Manufacturer.

1.6 PRE-INSTALLATION CONFERENCE

- A. Convene a pre-roofing conference approximately two weeks before scheduled commencement of roofing system installation and associated work.
- B. Require attendance of installers of deck or substrate construction to receive roofing, installers of rooftop units and other work in and around roofing which must precede or follow roofing work including mechanical work, Architect, Owner, roofing system manufacturer's representative.
- C. Objectives include:
 1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
 2. Tour representative areas of roofing substrates, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
 3. Review structural loading limitations of deck and inspect deck for loss of flatness and for required attachment.
 4. Review roofing system requirements, Drawings, Specifications and other Contract Documents.
 5. Review and finalize schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 6. Review required inspection, testing, certifying procedures.
 7. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
 8. Record conference including decisions and agreements reached. Furnish a copy of records to each party attending.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
- B. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches above

ground level and covered with "breathable" tarpaulins.

- C. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface. No wet or damaged materials will be used in the application.
- D. Storage temperatures should be between 60 degrees F to 80 degrees F (15.6 degrees to 26.7 degrees C). Indoor ventilated storage is recommended. Ensure jobsite storage is in a shaded and ventilated area. Do not store in direct sunlight. Keep materials away from open flame or welding sparks.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Weather Condition Limitations: Product application must not be done when rain or other conditions such as fog or heavy dew are possible within a 24 hour period. Roof surface must be at least 6 Fahrenheit degrees or 3 Celsius degrees above the dew point and rising.
- C. Proceed with roofing work only when existing and forecasted weather conditions will permit unit of work to be installed in accordance with manufacturer's recommendations and warranty requirements.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- E. When applying materials with spray equipment, take precautions to prevent over spray from damaging or defacing surrounding walls, building surfaces, vehicles or other property. Care should be taken to do the following:
 - 1. Close air intakes into the building.
 - 2. Have a dry chemical fire extinguisher available at the jobsite.
 - 3. Post and enforce "No Smoking" signs.
- F. Avoid inhaling spray mist; take precautions to ensure adequate ventilation.
- G. Protect completed roof sections from foot traffic for a period of at least 48 hours at 75 degrees F (24 degrees C) and 50 percent relative humidity or until fully cured.
- H. Take precautions to ensure that materials do not freeze.
- I. Minimum temperature for application of White-Knight Plus/ White-Stallion Plus, White-Knight Plus WC, LiquiTec and Cool-Sil coatings is 50 degrees F (10 degrees C) and rising.

1.9 WARRANTY

- A. Warranty Period: 10 years.
 - 1. Upon completion of the work, provide the Manufacturer's written and signed limited labor and materials Warranty, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the labor and material necessary to return the defective area to a watertight condition.
 - a. Metal Surface Roof Restoration:
- B. Warranty Period: Installer is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.

1. Warranty Period:
 - a. 2 years from date of acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Garland Company, Inc. (The); 3800 E. 91st St., Cleveland, OH 44105. ASD. Toll Free: 800-321-9336. Phone: 216-641-7500. Fax: 216-641-0633. Web Site: <http://www.garlandco.com>.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 METAL SURFACE ROOF RESTORATION

- A. Cool Sil HB:
 1. Primer: Rust-Go Primer (for priming metal components only)
 2. Coating: Cool Sil HB:
 3. Flashing: Cool Sil HB
 4. Reinforcement: Partial reinforcement on metal panel seams only.
 - a. UniBond ST

2.3 ACCESSORIES:

- A. Roof Insulation: In accordance with Section 07 22 16 - Roof Board Insulation.
- B. Nails and Fasteners: Non-ferrous metal or galvanized steel, except that hard copper nails shall be used with copper; aluminum or stainless steel nails shall be used with aluminum; and stainless steel nails shall be used with stainless steel. Fasteners shall be self-clinching type of penetrating type as recommended by the deck manufacturer. Fasten nails and fasteners flush-driven through flat metal discs not less than 1 inch (25 mm) diameter. Omit metal discs when one-piece composite nails or fasteners with heads not less than 1 inch (25 mm) diameter are used.
- C. Silicone Sealant - All-Sil: One part, medium modulus, high-performance sealant intended for use in expansion and control joints, reglets, panels, tilt-up walls, metal curtain walls, copings, window and door perimeters, panel bedding, and glazing details.
 1. Tensile Strength, ASTM D 412: 230 psi
 2. V Elongation, ASTM D 412: 360%
 3. Hardness, Shore A ASTM C 920: 24
- D. Silicone Sealer - Cool-Sil FG: One part, 100% silicone, moisture-cure sealer for sealing roof penetrations, drains, existing membrane seams and other flashing details.
 1. Tensile Strength, ASTM D 412: 130 psi
 2. Elongation, ASTM D 412: 275%
 3. Hardness, Shore A, ASTM C 920: 35
 4. Adhesion-in-Peel, ASTM C 92: 30 pli
- E. Silicone Dampproofing - Seal-A-Pore HP: Transparent and colorless solution designed to damp-proof above grade masonry surfaces as recommended and furnished by the membrane manufacturer.
 1. Density @77 degrees F 8.4 lb/gal min.
 2. Viscosity (Zahn #2 cup) Typical 14 sec.
- F. Acrylic Damp-Proofing Tuff-Coat: Damp-proofing that provides heavy body protection while bridging small hair line cracks and masonry imperfections as recommended and furnished by the membrane manufacturer.

1. Density @77 degrees F 12.25 lb/gal typical
 2. Viscosity, ASTM D 562: 95 KU
- G. Butyl Tape: 100% solids, asbestos free and compressive tape designed to seal as recommended and furnished by the membrane manufacturer.
- H. Non-Shrink Grout: GarRock all-weather fast setting chemical action concrete material to fill pitch pans.
1. Flexural Strength, ASTM C 78: (modified) 7 days 1100psi
 2. High Strength, ASTM C 109: (modified) 24 days 8400lbs (3810kg)
- I. Pitch Pocket Sealer - Universal Pitch-Pocket Sealer: Two-part, 100% solids, self-leveling, polyurethane sealant.
- J. Glass Fiber Cant - Glass Cant: Continuous triangular cross Section made of inorganic fibrous glass used as a cant strip as recommended and furnished by the membrane manufacturer.

2.4 EDGE TREATMENT AND ROOF PENETRATION FLASHINGS

- A. Flashing Boot - Rubbertite Flashing Boot: Neoprene pipe boot for sealing single or multiple pipe penetrations adhered in approved adhesives as recommended and furnished by the membrane manufacturer.
- B. Vents and Breathers: Heavy gauge aluminum and fully insulated vent that allows moisture and air to escape but not enter the roof system as recommended and furnished by the membrane manufacturer.
- C. Pitch pans, Rain Collar 24 gauge stainless or 20oz (567gram) copper. All joints should be welded/soldered watertight. See details for design.
- D. Drain Flashing should be 4lb (1.8kg) sheet lead formed and rolled.
- E. Plumbing stacks should be 4lb (1.8kg) sheet lead formed and rolled.
- F. Fabricated Flashing: Fabricated flashings and trim are specified in Section 07 62 00 - Sheet Metal Flashing and Trim.
1. Fabricated flashings and trim shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the CDA Copper Development Association "Copper in Architecture - Handbook" as applicable.
- G. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are specified in Section 07 71 23 - Manufactured Gutters and Downspouts.
1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the NRCA "Roofing and Waterproofing Manual" as applicable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.

3.2 ROOF PREPARATION AND REPAIR

- A. General: All necessary field and flashing repairs must be done according to good construction practices, including the removal of all wet insulation and defective materials as identified through a moisture detection survey such as an infrared scan and replacement with like-materials.
 - 1. Remove damaged roof flashings from curbs and parapet walls down to the surface of the roof. Remove damaged existing flashings at roof drains and roof penetrations.
 - 2. Existing roof surfaces shall be primed as necessary and allowed to dry prior to installing the roofing system.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Repair all defects such as deteriorated roof decks, saturated materials, loose or brittle membrane or membrane flashings, etc. Verify that existing conditions meet the following requirements:
 - 1. Existing membrane is either fully adhered or that the membranes mechanical fasteners are secured and functional.
 - 2. Application of roofing materials over a brittle, damaged or poor condition roof membrane is not permitted.
- D. Remove all loose dirt and foreign debris from the roof surface. Do not damage roof membrane in cleaning process.
- E. Clean and seal all parapet walls, gutters and coping caps, and repair any damaged metal where necessary. Seal watertight all fasteners, pipes, drains, vents, joints and penetrations where water could enter the building envelope.
- F. Confirm local water run-off ordinances and restrictions prior to cleaning roof. Clean the entire roof surface by removing all dirt, algae, mold, moss, paint, oil, talc, rust or other foreign substance. Use a bio-degradable cleaner like Simple Green Oxy Solve when necessary and warm water. Scrub heavily soiled areas with a brush. Power wash roof thoroughly with an industrial surface cleaner equipped with one piece balanced spray rotating jets for streak free close contact cleaning. Rinse with fresh water to completely remove all residuals. Allow roof to dry thoroughly before continuing.
- G. Repair existing roof membrane as necessary to provide a sound substrate for the liquid membrane. All surface defects must be repaired/renovated and be made watertight. Any repairs must be with be only with materials compatible with the fluid-applied roofing restoration system.
- H. Power washing of metal roof surfaces to remove all loose rust or scale is mandatory before application. Use a high volume air broom or compressed air to remove residual dust, rust perforations, etc. Deteriorated metal roof decks must be repaired or replaced prior to the application of the coating system.

3.3 INSTALLATION

- A. General Installation Requirements:
 - 1. Install in accordance with manufacturer's current Application and Installation Guidelines and the NRCA Roofing and Waterproofing Manual.
 - 2. Adequate coating thickness is essential to performance. If the applicator is unfamiliar in gauging application rates, we suggest that a controllable area be measured and the specified material be applied. In all cases, all minimum specified material must be applied and proper minimum dry film thicknesses must be achieved. Care must be taken to ensure that all areas completed including all flashings, roof penetrations, etc. are coated sufficiently to ensure a watertight seal.
 - 3. Cooperate with manufacturer, inspection and test agencies engaged or required to

- perform services in connection with installing the roof system.
 - 4. Insurance/Code Compliance: Where required by code, install and test the roofing system to comply with governing regulation and specified insurance requirements.
 - 5. Protect work from spillage of roofing materials and prevent materials from entering or clogging drains and conductors. Replace or restore adjacent work damaged by installation of the roofing system.
 - 6. All primers must be top coated within 24 hours after application, preferably immediately after drying. Clean and re-prime if more time passes after priming.
 - 7. Coordinate counter flashing, cap flashings, expansion joints and similar work with work specified in other Sections under Related Work.
 - 8. Coordinate roof accessories and miscellaneous sheet metal accessory items, including piping vents and other devices with work specified in other Sections under Related Work.
- B. Metal Surface Roof Restoration: Renovation work includes:
- 1. Surface Preparation: Remove loose flaking rust, dust, dirt, debris, secure all gaped panels and replace all loose fasteners with next size larger.
 - a. Remove rust by the most rigorous method suitable for the particular project and as approved by Garland.
 - b. Tighten all fasteners and verify that neoprene washers are in place.
 - c. Replace missing fasteners using oversize fasteners as necessary.
 - d. Seal all fastener heads by applying a heavy dab of compatible sealant to the tops and around of all fastener heads.
 - e. Repair gaps, holes and joints in the metal roof with appropriate patching materials.
 - f. Completely remove existing seam coatings, mastics and sealants.
 - g. Ensure skylights, scuppers, gutters, penetrations and structures are firmly secured, watertight and in good working condition.
 - h. Where necessary, install water deflecting crickets behind rooftop mechanical units.
 - i. All roof areas must promote positive drainage.
 - j. Previously coated roofs with well-adhered polyurethane or polyurea coating surfacing must be solvent-wiped with acetone after cleaning to reactivate surface for overcoating.
 - 2. Flashing: Repair/Replace metal flashings, pitch pockets, etc.
 - 3. Primer:
 - a. Prime entire roof surface with Metal Primer rust inhibitive primer at 1/4 gallon per 100 SF.
 - 4. Reinforcement: Treatment of field seams and around penetrations:
 - a. Application of UniBond ST seam tape with Base Coat on metal panel end laps, flashings and around penetrations.
 - 1) Verify that the surface to be coated is properly prepared.
 - 2) Remove the clear release liner from the back in workable sections
 - 3) Center 6 inch wide UniBond ST over the middle of the lap.
 - 4) Use care to install the tape uniformly. Do not stretch or cause air pockets, wrinkles or fishmouths.
 - 5) Apply pressure to tape starting at the center and work toward outside edge with a steel roller to activate the bonding process.
 - 6) Inspect the tape to ensure that it is properly installed. Verify edges are tightly fixed to surface. If any discrepancies are present, repair before the coating is applied.
 - 7) Saturate the tape with coating or baser as specified.
 - 5. Coating: Ensure the fluid-applied coverage rates are obtained throughout the entire roof surface.
 - a. Material: Apply base coat in a uniform manner at 1.5 gallons per 100 SF over the entire roof surface. Allow to cure thoroughly, but no more than 72 hours.

- Apply a top coating over base coat at 1.0 gallons per 100 SF.
- b. Use special attention to coating flashings and other critical areas to build adequate membrane thickness.
- c. Use multiple coats on verticals or steep slopes to prevent sagging and to obtain the required total coverage rate.
- d. Apply to Garland's minimum membrane thickness over the entire roof surface.

3.4 REPAIR OF EDGE TREATMENT AND ROOF PENETRATION FLASHING

- A. General
 - 1. Repair flashing in accordance with the requirements/recommendations of the Membrane manufacturer and as indicated on the manufacturer's standard drawings. Provide system with base flashing, edge flashing, penetration flashing, counter flashing, and all other flashings required for a complete watertight system.
 - 2. Install and repair flashings concurrently with the roofing as the job progresses.
 - 3. Terminate flashings as required by the membrane manufacturer.
- B. Manufactured Roof Specialties: Manufactured copings, fascia, gravel stops, control joints, expansion joints, joint covers and related flashings and trim are provided as specified in Section 07 71 23 - Manufactured Gutters and Downspouts.
 - 1. Manufactured roof specialties shall conform to the detail requirements of SMACNA "Architectural Sheet Metal Manual" and/or the National Roofing Contractor's Association "Roofing and Waterproofing Manual" as applicable.

3.5 CLEANING

- A. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
- B. Remove coating markings from finished surfaces.
- C. Repair or replace defaced or disfigured finishes caused by Work of this section.

3.6 PROTECTION

- A. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
- B. Protect exposed surfaces of finished walls with tarps to prevent damage.
- C. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
- D. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
- E. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

3.7 FIELD QUALITY CONTROL

- A. Require attendance of roofing materials manufacturers' representatives at site during installation of the roofing system.
- B. Perform field inspection and [and testing] as required under provisions of Section 01 41 26 - Permit Requirements.
- C. Correct defects or irregularities discovered during field inspection.

3.8 FINAL INSPECTION

- A. At completion of roofing installation and associated work, meet with Contractor, Architect, installer, installer of associated work, roofing system manufacturer's representative and others directly concerned with performance of roofing system.
- B. Walk roof surface areas, inspect perimeter building edges as well as flashing of roof penetrations, walls, curbs and other equipment. Identify all items requiring correction or completion and furnish copy of list to each party in attendance.
- C. If core cuts verify the presence of damp or wet materials, the installer shall be required to replace the damaged areas at his own expense.
- D. Repair or replace deteriorated or defective work found at time above inspection as required to produce an installation that is free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- E. Notify Architect upon completion of corrections.
- F. Following the final inspection, provide written notice of acceptance of the installation from the roofing system manufacturer.

3.9 SCHEDULES

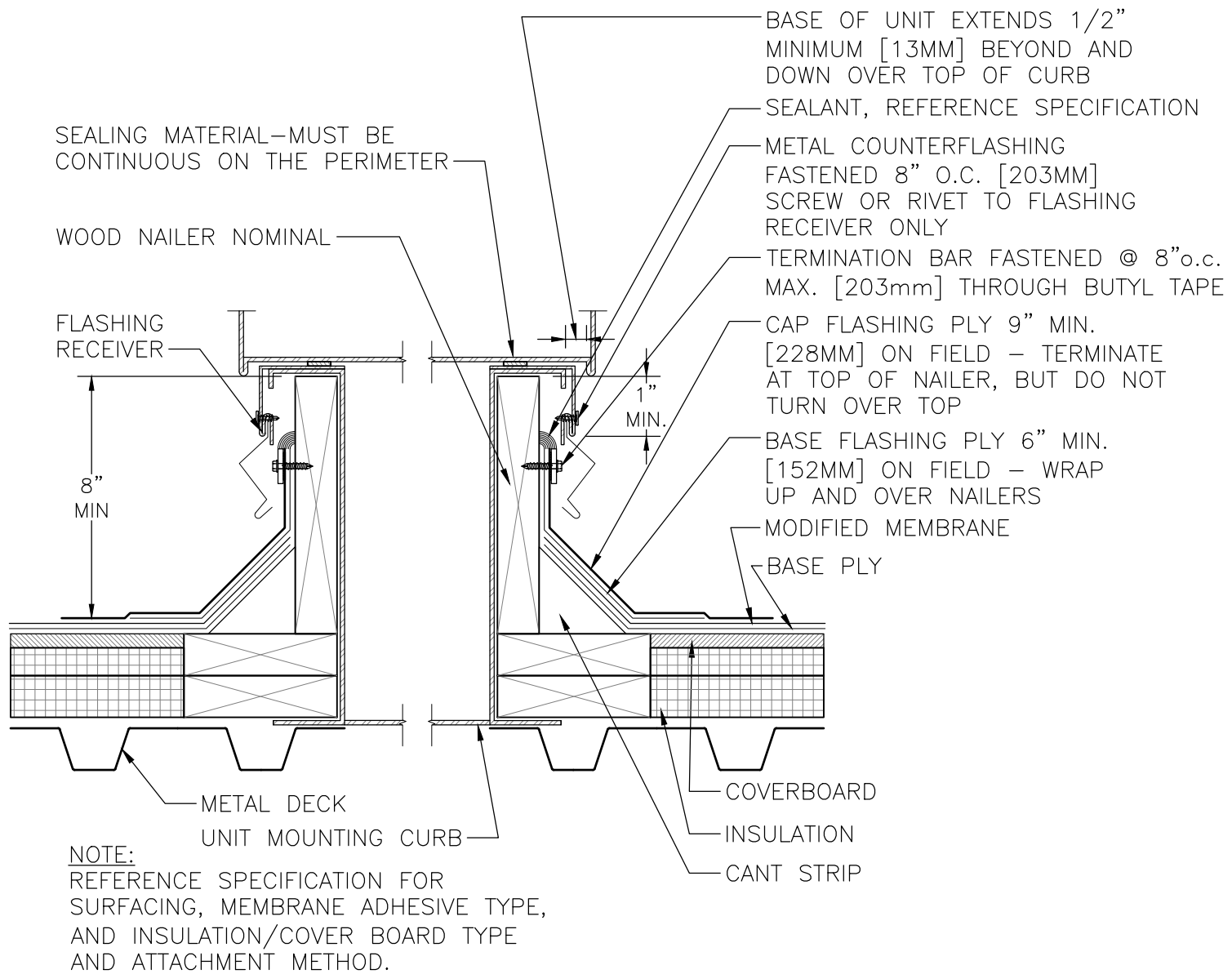
- A. Primers:
 - 1. Metal Primer:
 - a. Flash Point: 40 degrees F (4.4 degrees C) min
 - b. Solids by Weight: 69.9% plus/minus 2.0%
 - c. Solids by Volume: 52.5% plus/minus 2.0%
 - d. Viscosity @ 77 degrees F (25 degrees C): 70 plus/minus 5 KU
- B. Reinforcement:
 - 1. UniBond ST: Fatigue resistant, polyester-faced adhesive tape.
 - a. Tensile Strength 4500 psi.
 - b. Elongation, 500%
 - c. Low Temperature Flexibility, -70 degrees F (-56.6 degrees C).
 - d. Service Temperature, -30 to 200 degrees F (-34.4 to 93.3 degrees C).
 - e. Permeance ASTM 96b, .001 perms.
 - f. Adhesion Greater than 20 lbs./in.
- C. Coatings:
 - 1. Coating: Cool-Sil HB Gray Silicone Coating (Roller Grade): Single-component 100 % silicone, liquid waterproofing membrane.
 - a. Tensile Strength: ASTM D 412, 350 psi
 - b. Elongation: ASTM D 412, 174%
 - c. Flash Point: ASTM D 93, 141 degrees F min. (60.6 degrees C)
 - d. Solids Content: ASTM D 2369, Typical 95%
 - e. VOC: < 50 g/l
 - 2. Coating: Cool-Sil HB White Silicone Coating (Roller Grade): Highly reflective, multi - purpose, single-component 100% silicone, liquid waterproofing membrane.
 - a. Tensile Strength: ASTM D 412, 350 psi
 - b. Elongation: ASTM D 412, 174%
 - c. Flash Point: ASTM D 93, 141 degrees F min. (60.6 degrees C)
 - d. Solids Content: ASTM D 2369, Typical 95%
 - e. VOC: < 50 g/l
 - f. Reflectance: 0.89
 - g. Emittance: 0.90

h. SRI: 113

D. Sealant.


1. Sealant: All-Sil: Low modulus, high extension/compression and excellent adhesion to most building materials s,
 - a. Tensile Strength: ASTM D 412, 130 psi
 - b. Elongation: ASTM D 412, 275%
 - c. Solids Content: ASTM D 2369, Typical 95%
 - d. VOC: < 50 g/l

END OF SECTION

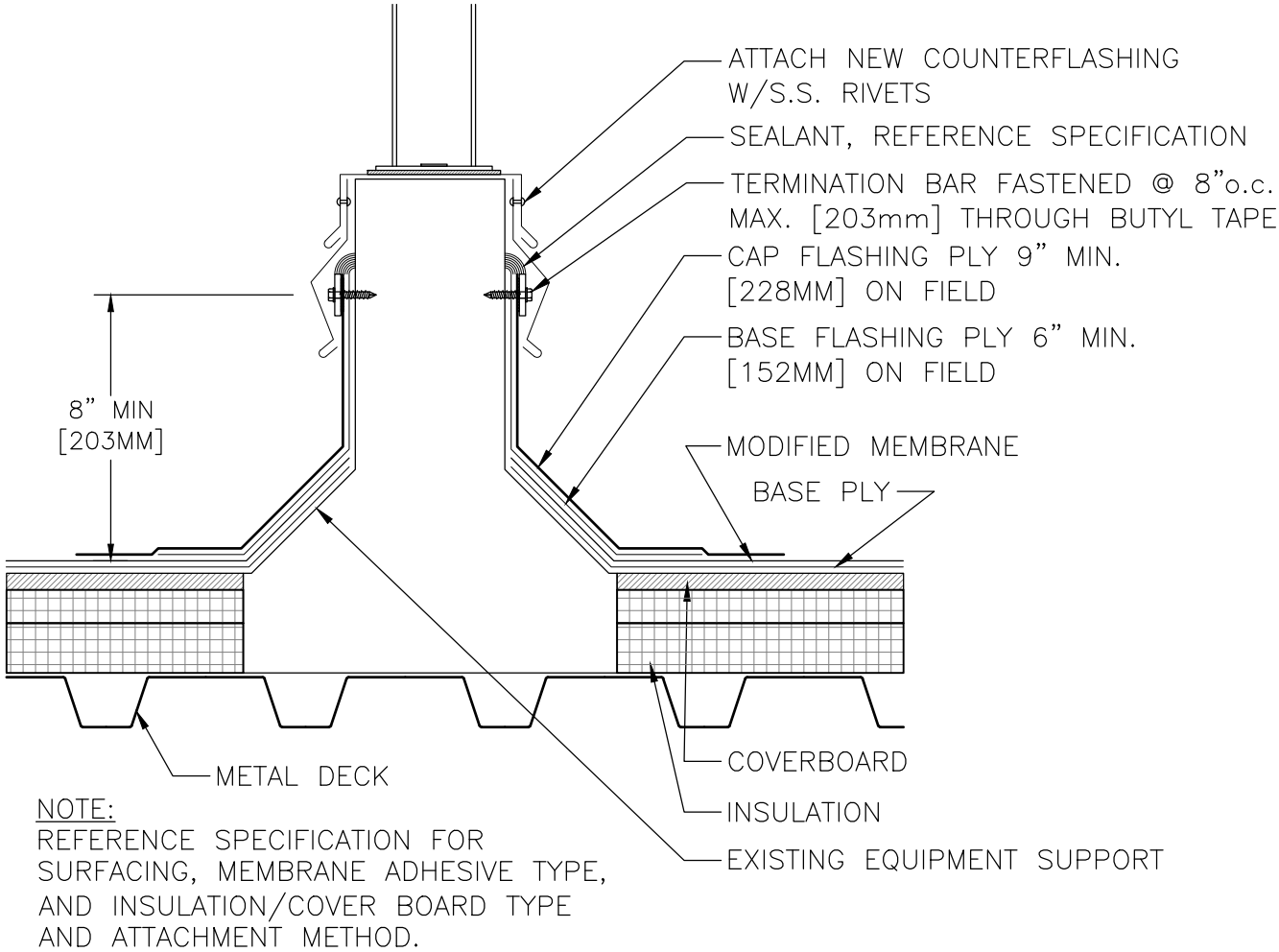


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CURB DETAIL / AIR HANDLING STATION

	PROJECT:	
	CUSTOMER:	
	ARCHITECT:	
	REPRESENTATIVE:	
	DATE:	SHT: OF

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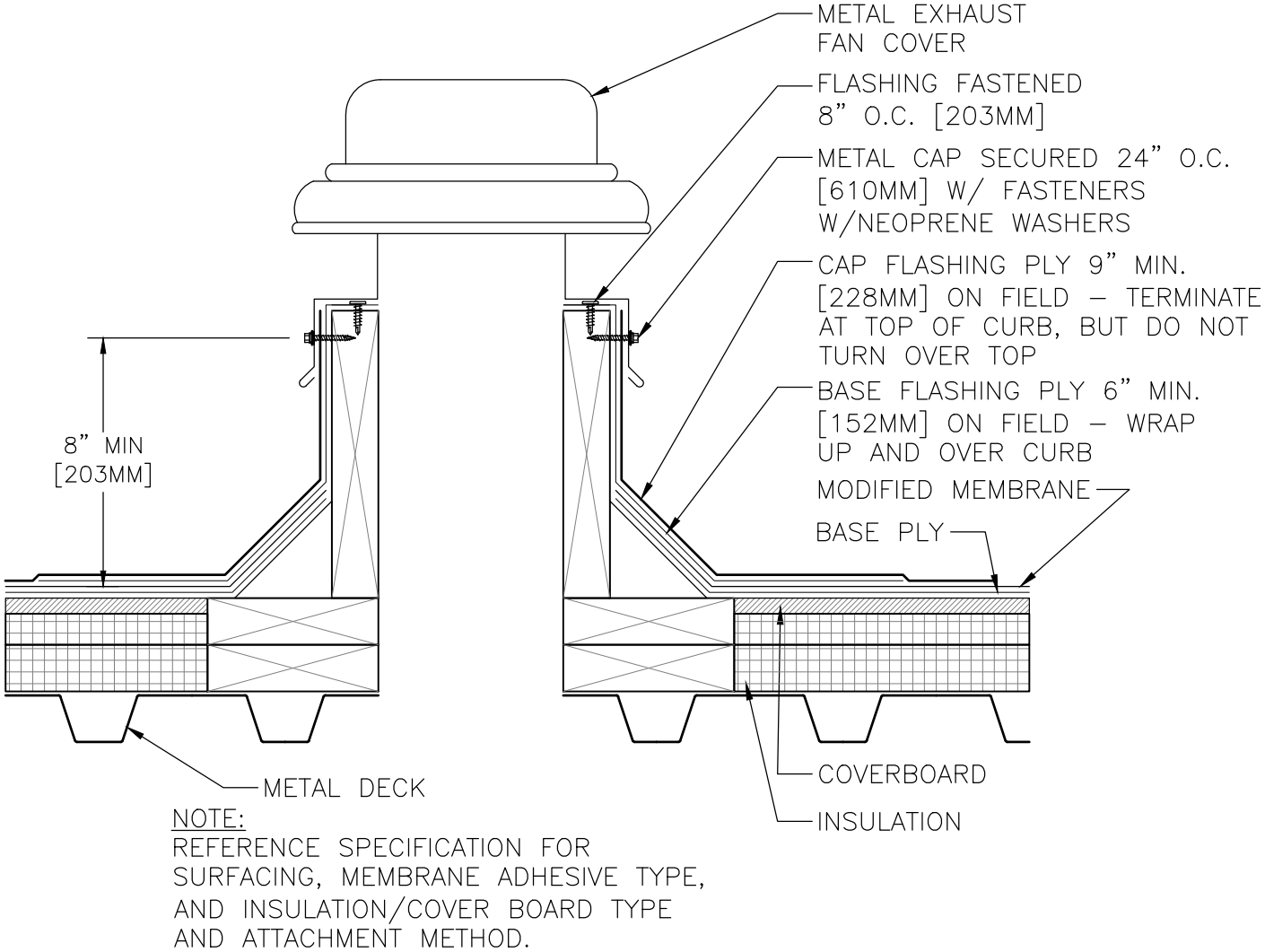
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EQUIPMENT SUPPORT PREMANUFACTURED - EXISTING




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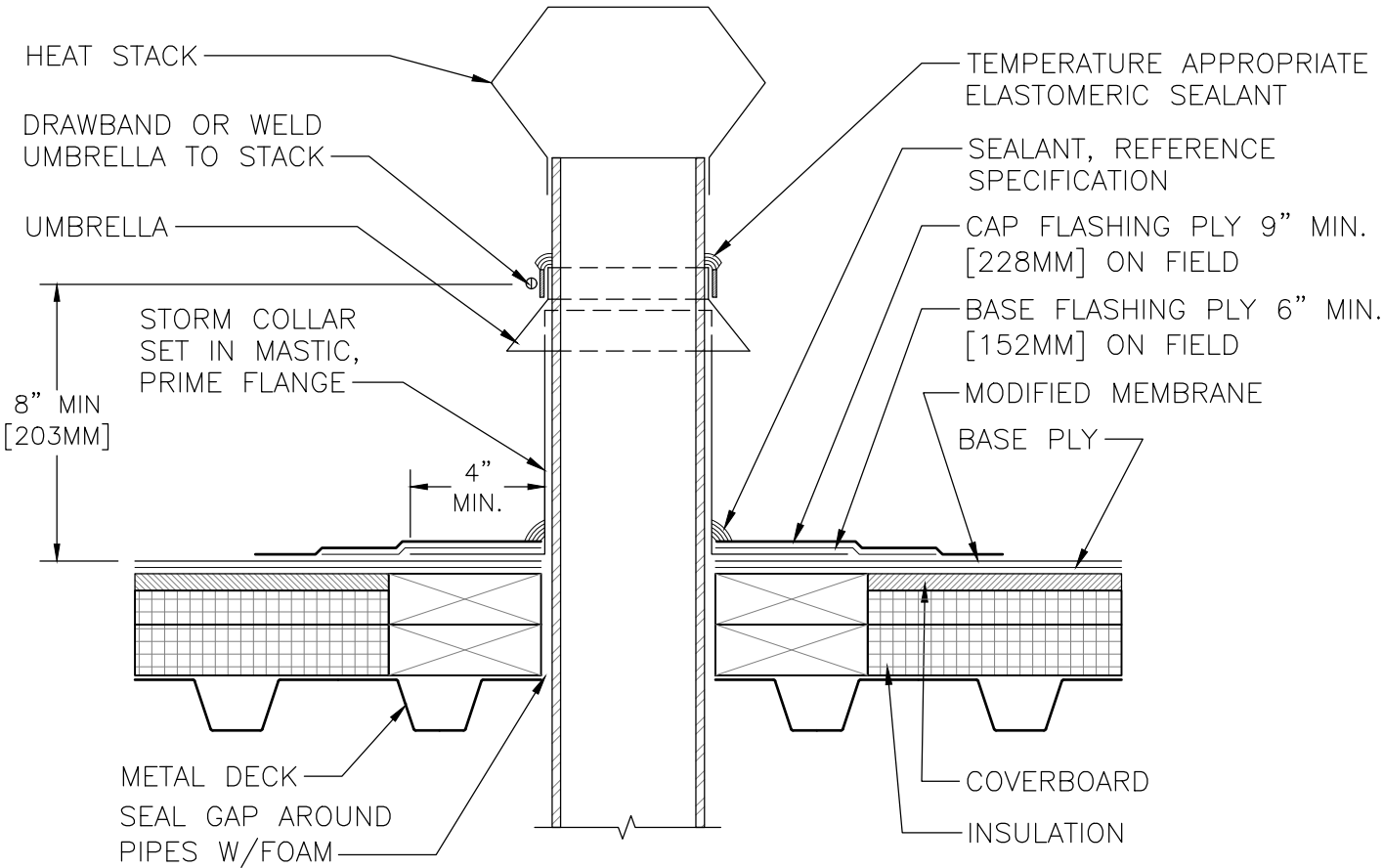


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EXHAUST FAN


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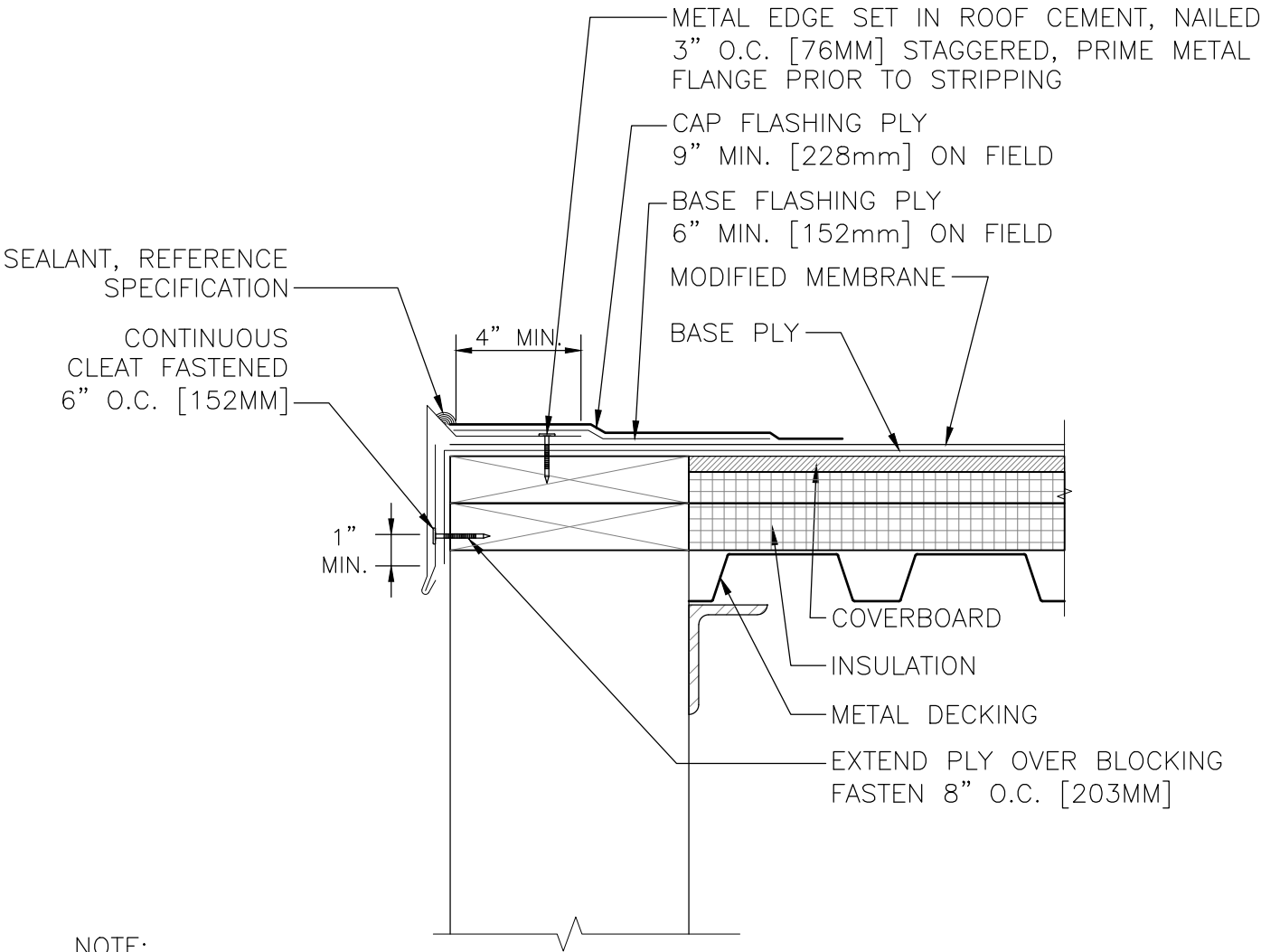
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NOTE:
REFERENCE SPECIFICATION FOR
SURFACING, MEMBRANE ADHESIVE TYPE,
AND INSULATION/COVER BOARD TYPE
AND ATTACHMENT METHOD.

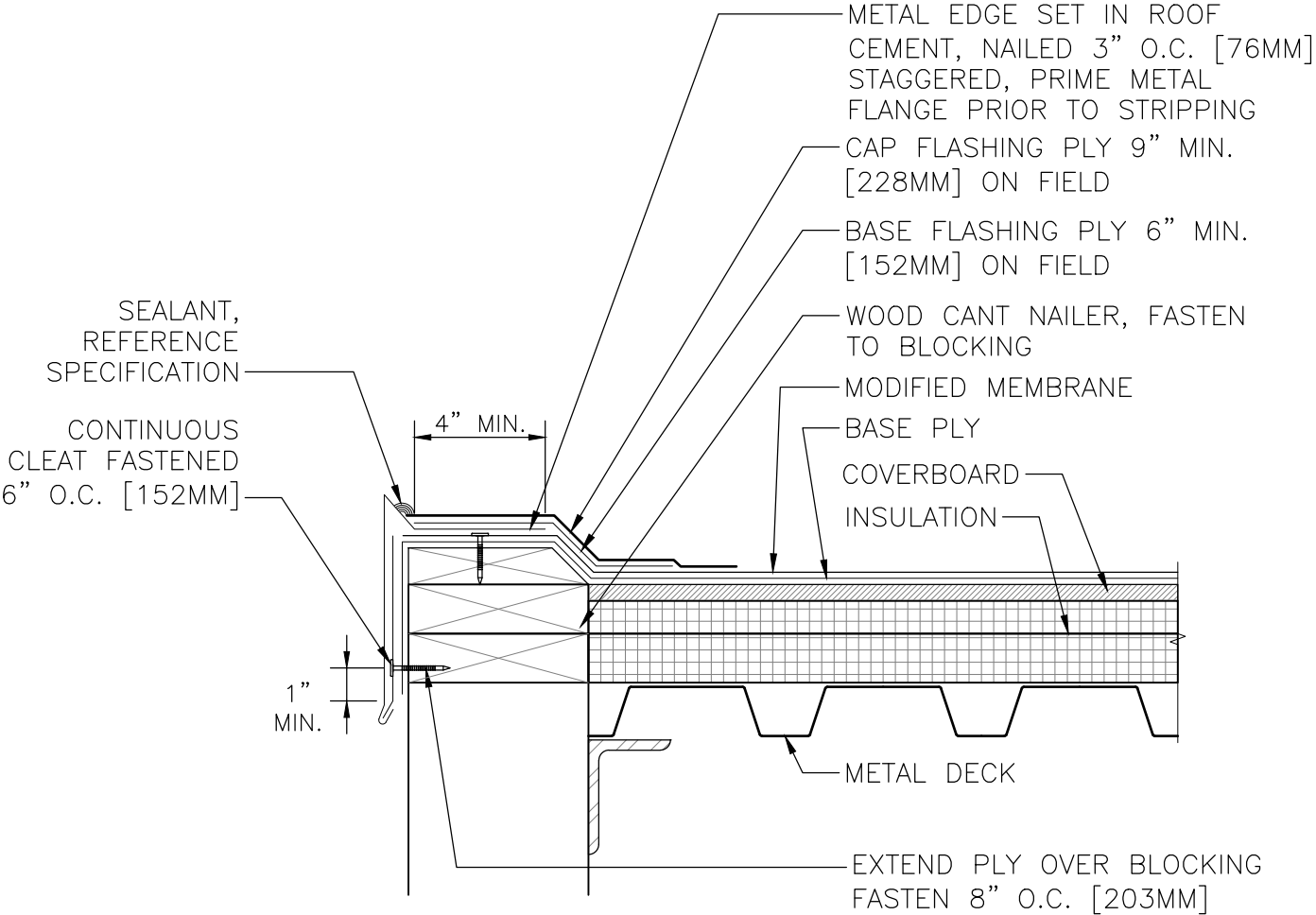
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METAL EDGE - GRAVEL STOP	
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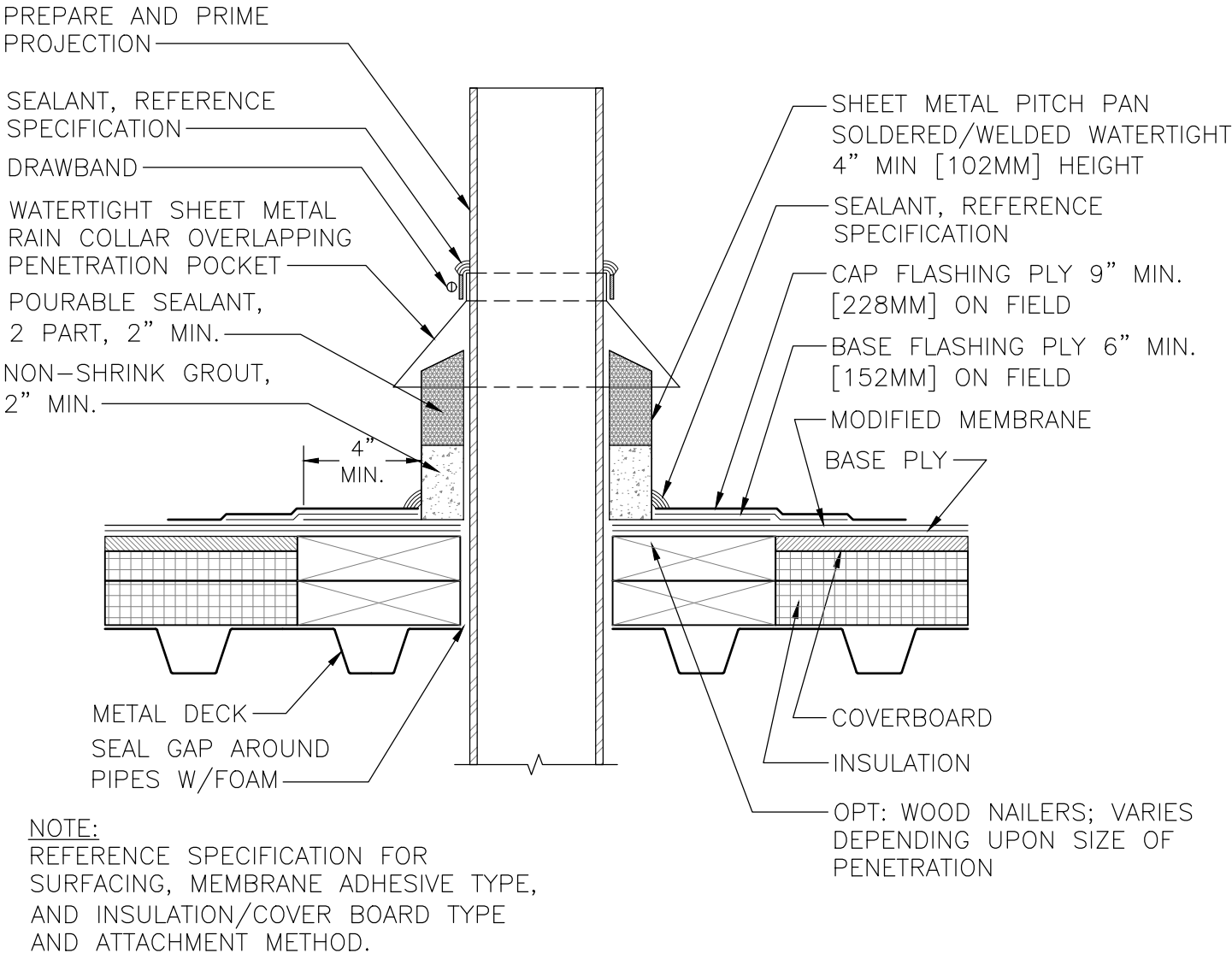


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METAL EDGE - RAISED

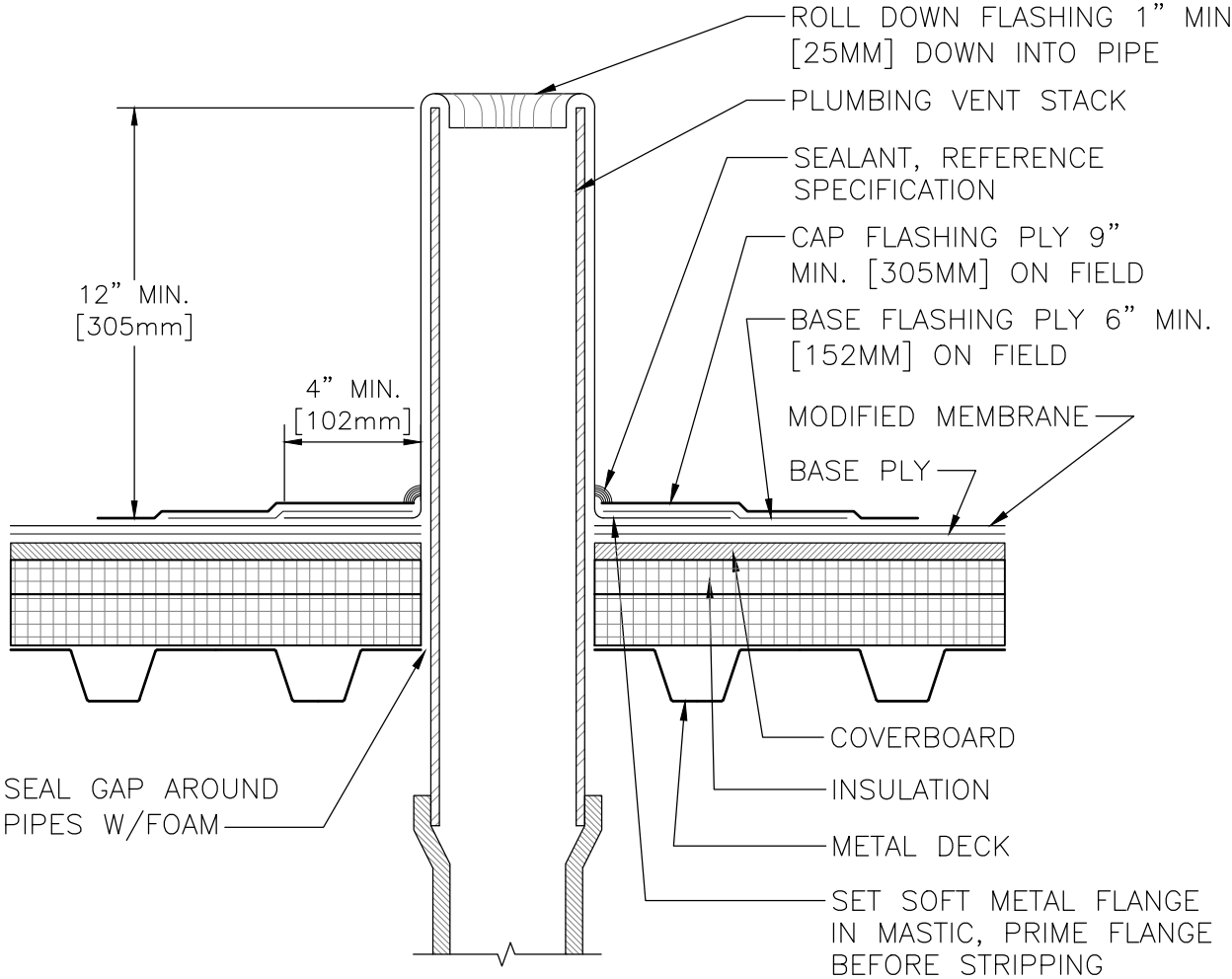
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PITCH POCKET (PIPE)


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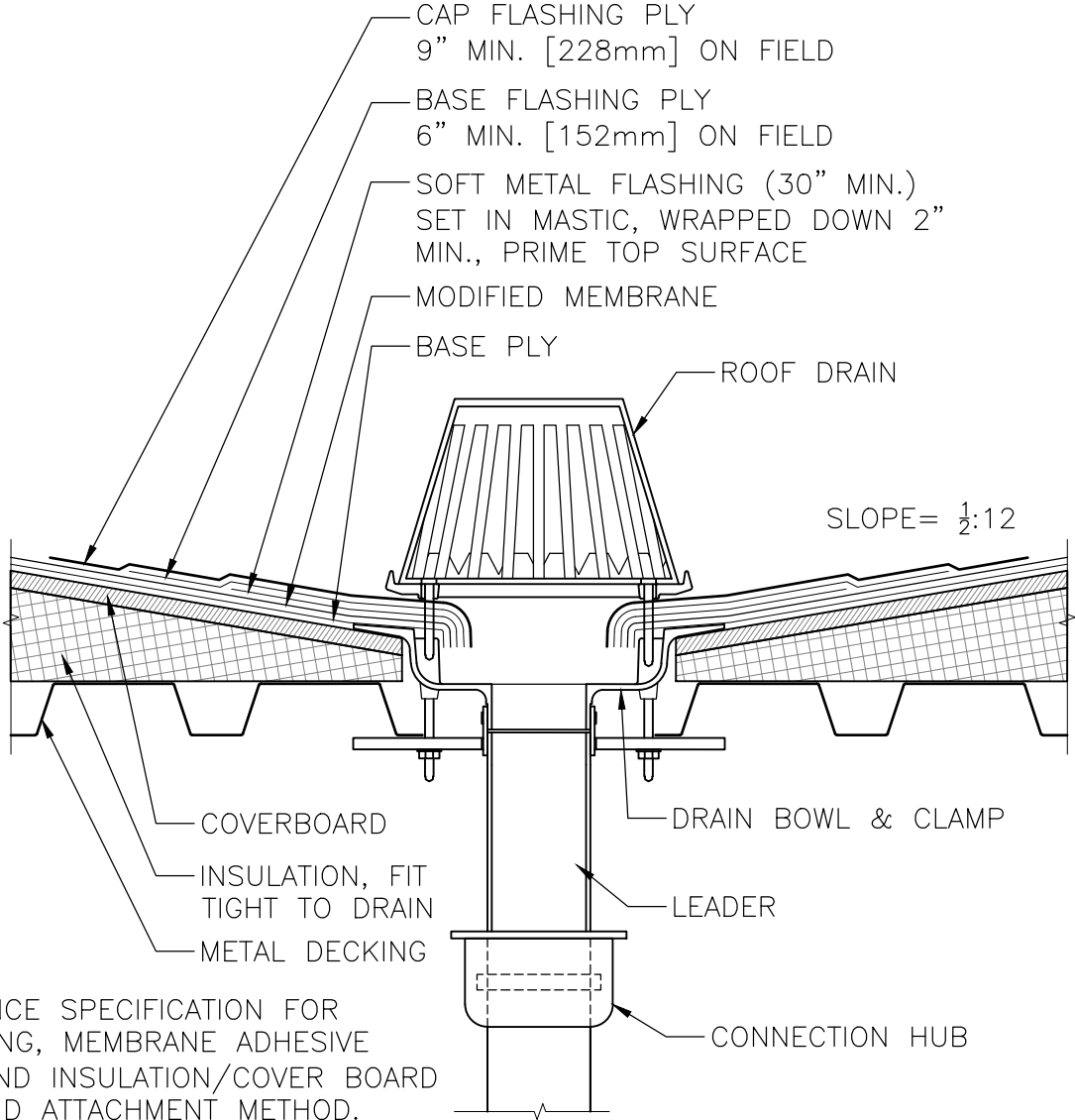


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PLUMBING STACK

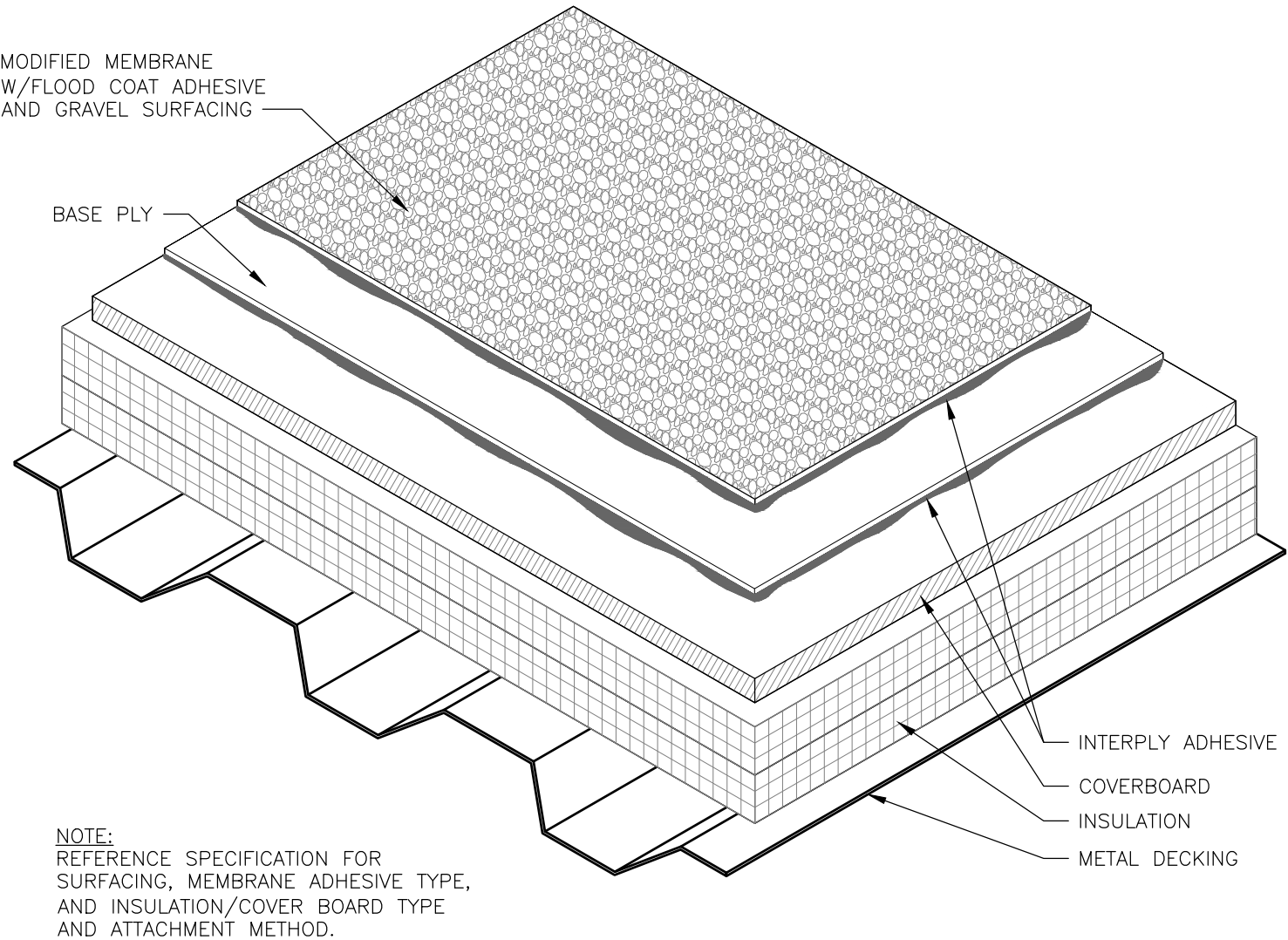
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ROOF DRAIN

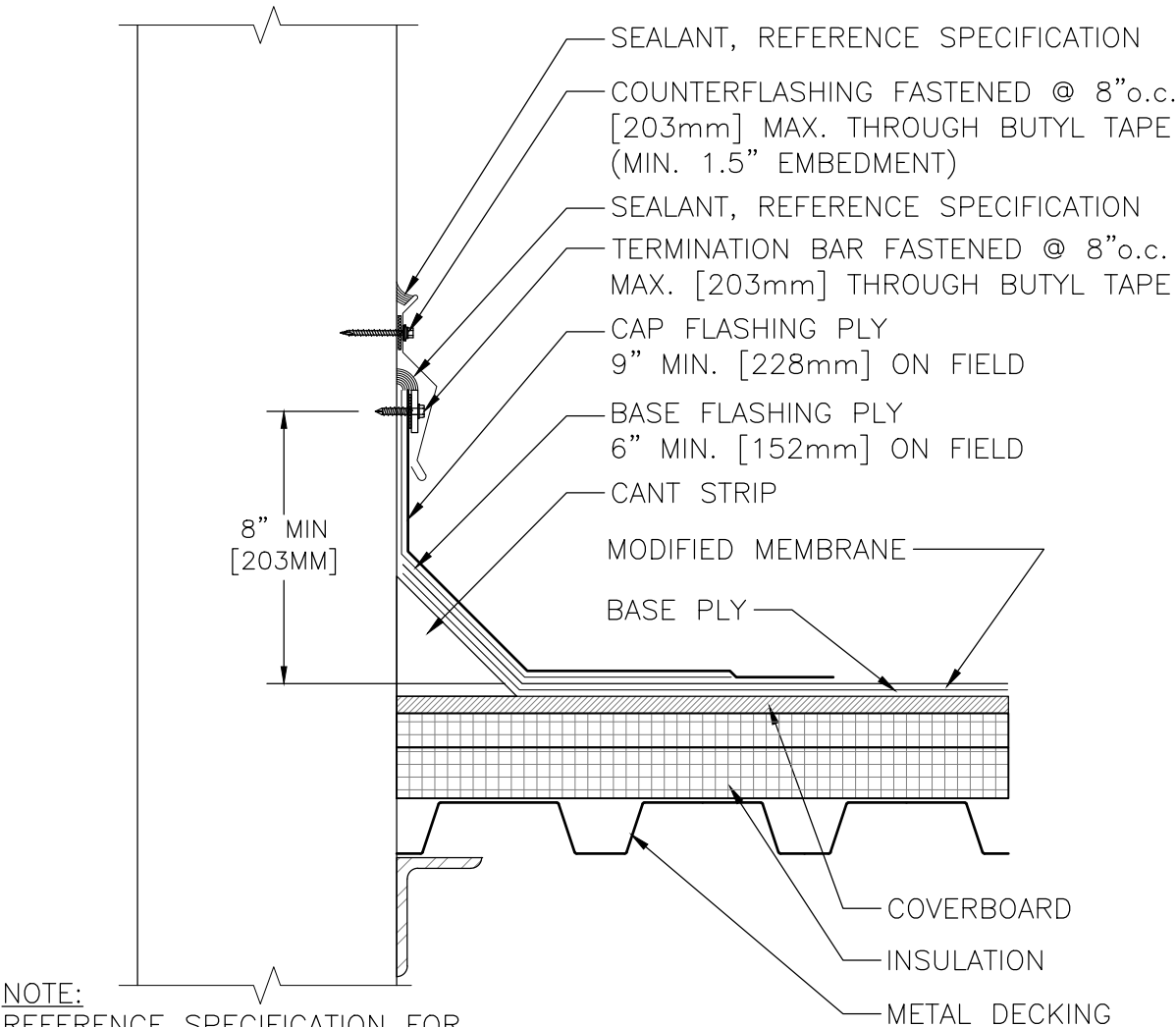
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TYPICAL ROOF SYSTEM GRAVEL SURFACE

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NOTE:
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AND INSULATION/COVER BOARD TYPE
AND ATTACHMENT METHOD.

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WALL FLASHING - SURFACE MOUNTED COUNTERFLASHING



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Cool-Sil™ FG

Flashing Grade Silicone Sealant



OVERVIEW & FEATURES

Cool-Sil™ FG (flashing grade) is a 100% silicone, moisture-cure sealant that forms a tough, flexible and water-resistant membrane. It is ideal for sealing roof penetrations, drains, existing membrane seams and other flashing details on aged modified bitumen, single-ply membranes, built-up roof membranes and metal roofs.

Low odor - Cool-Sil FG has low VOC and low odor, making it suitable for a variety of applications.

Easily applied - This sealant can be applied simply by brush, trowel or putty knife. This, combined with the product's superior adhesion, ensures the sealant permeates those hard-to-reach places quickly and efficiently.

Fast curing - Despite its thick composition, Cool-Sil FG is tack-free within 1-2 hours. The product's moisture-curing composition speeds up the process toward full coverage.

APPLICATION

The surface must be clean, dry and free from oils and other contaminants. Cool-Sil FG can be applied by brush, trowel, or putty knife. Coverage rates are theoretical and will vary based on surface texture and application conditions such as weather and slope. Cool-Sil FG is typically applied at 1/8 in. - 1/4 in. thickness depending upon the application and substrate.

Weather Restrictions - Cool-Sil FG silicone sealant should not be applied in ambient temperatures above 95°F. For cold weather applications, store material above 65°F before use.

Typical Cure Rate - At 77°F and 50% RH, the sealant is tack-free in 1-2 hours, with through cure (3/8" depth) being achieved between 12 and 18 hours.

Technical Data	Cool-Sil FG
Color	White
Elongation (ASTM D412)	275%
Tensile Strength (ASTM D412)	130 psi
Solids Content (ASTM 2697)	92% (+/-3)
Tack-Free Time (ASTM C679)	1-2 hrs
Cure Time (ASTM C679)	12-18 hrs
VOC (ASTM D396)	<50 g/L
Shelf Life	1 year, unopened and stored between 50°F and 90°F (10°C and 32°C)
Packaging	2 gal pail (7.6 L)

For more information, visit us at: www.garlandco.com

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Second Way Centre, Second Way
Avonmouth, Bristol UK BS11 8DF
Phone: 011 44 1174 401050 (Outside UK)
Toll Free: 0800 328 5560 (Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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Cool-Sil™ HB Silicone

100% Silicone



OVERVIEW & FEATURES

Cool-Sil HB is a silicone rubber fluid-applied roof system that is solvent-free, high solids, one-component and moisture-curing. This system is designed to restore existing aged smooth surface BUR, granulated cap sheets, single-ply membranes and metal roofs. It can also be used as a repair material for maintenance applications.

Cool-Sil provides excellent UV resistance, adhesion, and breathability, and has exceptional waterproofing properties. It is easily applied by roller, squeegee, or brush.

Ready to use - This one-part material can be applied easily to a dry, moisture-free and clean surface and is quickly rain-safe. It fully cures in 1 to 4 hours based on temperature and humidity by reacting with moisture in the air.

Protective - Cool-Sil HB provides long-term protection because it resists weathering, aging, oxidation, rain and snow, the effects of ozone, ultraviolet radiation and temperature extremes typically found on roofs.

Durable - With its high solids content and absence of hydrocarbon solvents, Cool-Sil provides a thick and durable, mold and mildew resistant roof covering that performs in a wide temperature range in the most severe climatic conditions.

This product may contribute toward a variety of LEED credit points.

PREPARATION

Conduct a moisture survey prior to roof restoration and make any necessary repairs, including removal of any wet insulation and roofing materials, replacing with like materials. Allow repairs to cure completely. Confirm local water run-off ordinances and restrictions prior to cleaning. Carefully power-wash all surfaces with greater than 2,000 psi pressure to remove debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces. Wearing personal protective clothing and equipment, remove algae, mildew, or fungus with Garland D7 or Simple Green Oxy Solve, scrubbing with a push broom scrub brush. Rinse at least twice to be sure all cleaning agents and contaminants are completely removed to prevent adhesion issues. If the roof surface becomes contaminated with dirt, dust, or other particles at any time during the application of the Cool-Sil system, cleaning measures must be taken to restore the surface to a suitable condition.

APPLICATION

Refer to the Cool-Sil Restoration Application Guides (single-ply, modified bitumen, or metal) for complete substrate-specific repair, preparation and application requirements.

PRECAUTIONS

- In accordance with Garland's adhesion testing protocol, ensure that the coating bond strength to the existing roof substrate(s) is two (2) pounds per linear inch (pli) or greater
- Storage temperatures should be between 60-80°F (15.6-26.7°C) and not exceed 110°F (43.3°C). Indoor ventilated storage is recommended. Ensure job site storage is in a shaded and ventilated area. Do not store in direct sunlight.
- Coverage rates vary depending on warranty and substrate.
- Restrict coating application when the ambient temperature is not at least 50°F (10°C) and rising or when overnight temperature drops below 40°F (4.4°C).
- Restrict coating application when the ambient temperature is greater than 95°F (35°C).
- Roof surface must be at least six (6) Fahrenheit degrees or three (3) Celsius degrees above the dew point and rising.
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule non-skid walkway surface.
- Excess water on a Cool-Sil roof can cause the roof to become slippery.
- Not intended to be installed over an asphalt glaze coating.
- Coverage rates may vary based on surface condition/texture and do not take into account material loss due to spraying, surface texture, surface absorption, waste, etc.

For more information, visit us at: www.garlandco.com

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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CS HB 0122

Cool-Sil™ HB Silicone

100% Silicone

Technical Data	Cool-Sil HB
Color	Standard White & Gray
Solid Content Volume (ASTM D2369)	95% (+/-2)
Tack-Free Time	1-2 hours
Cure Time	1-4 hours
Durometer Hardness Shore A (ASTM D2240)	37
Tensile Strength (ASTM D412)	350 psi
Temperature Stability Range	-35°F to 212°F (-37°C to 100°C)
Elongation (ASTM D412)	174%
Permeability* (ASTM E108)	11 perms
Accelerated Weathering QUV, 5,000 hours (ASTM G154)	No Degradation
Flash Point (ASTM D93)	141°F (60.6°C)
Low Temperature Flexibility (ASTM D522)	-50°F (-45.6°C)
Shelf Life	2 years, unopened and stored between 60°F and 80°F (15.6°C and 26.7°C)
Packaging	5 gal pail (18.9 L)
Viscosity (ASTM D2196)	6,000-10,000 cps

*20 mils at 100°F (38°C) and 90% relative humidity

Eco-Facts	Cool-Sil HB	
VOC	<50 grams/liter	
	Initial	Aged
Solar Reflectance* (ASTM C1549)	0.89	0.73
Thermal Emittance* (ASTM C1371)	0.90	0.90
SRI Value*	113	90

*Reflectance, emittance, and SRI values are for white color only.

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OVERVIEW & FEATURES

Garla-Brite is a non-fibered, asphalt-based aluminum roof paint. It provides an exceptionally bright finish with excellent covering power. Garla-Brite preserves, beautifies and provides a reflective shield over old and new roof systems, including metal roofs. It can also be used over a wide variety of other surfaces that require protection from heat, solar radiation, rust and corrosion. Garla-Brite meets and exceeds ASTM D 2824 Type I.

Saves Energy - A Garla-Brite application reduces under roof temperature by 15 degrees or more. As a result, the work load on the building's air conditioning system is reduced by as much as one ton per 1,500 ft. (139 m²) so proper interior temperatures can be maintained at lower costs.

Reduces Roof Deterioration - Garla-Brite's aluminum finish reflects the sun's UV rays and reduces their damaging effects on the roof surface. Two coats form a long-lasting metallic shield which preserves and protects the roof surface and the roof system below. The roof lasts longer and requires less maintenance.

Improves Building Appearance - Garla-Brite provides a bright, attractive roof surface which improves the building's appearance.

Economical - Garla-Brite is formulated to provide maximum per gallon coverage. One gallon (3.8 liters) of Garla-Brite aluminizer covers the same area as 3-4 gallons (11-15 liters) of the standard fibered aluminum coating. Garla-Brite is the ideal top coat for any of Garland's HPR® roofing systems. The second coat should be placed perpendicular to the first coat.

APPLICATION

Existing roof surface must be completely dry and void of any dirt, debris or foreign materials. Mix Garla-Brite for two minutes with an electric power drill and Jiffy mixer blade to thoroughly blend the product. Remixing is necessary every 15 minutes if contents of bucket is not used.

For surfacing modified bitumen roofs or smooth BUR, grid out area on roof that correlates with Garla-Brite's specified coverage rate for one pail of material. Pour out Garla-Brite from the pail and immediately roll product into the marked area with a 1/4" nap smooth roller. Do not overwork material and finish strokes in the same direction for uniform appearance.

For metal surfaces, pouring the coating and spreading with a roller is not recommended. Rather, the coating can be applied by dipping the roller into a tray or trough and rolling onto the metal.

PRECAUTIONS

- Do not dip and roll from pail.
- Roof surface must be at least six Fahrenheit degrees or three Celsius degrees above the dew point and rising.
- Product application must not be done when rain or other conditions such as fog or heavy dew are possible within a 24-hour period.
- Avoid over working the material which can interfere with the leafing of the aluminum and cause the material to appear bronze or darker than desired.
- Allow 30 days for Garla-Shield or any emulsion to cure prior to application of Garla-Brite.
- Allow 90 days for any approved solvent-based product to cure prior to application of Garla-Brite.
- Allow 5 days for any hot-applied system to cool and age prior to application of Garla-Brite.
- Reference product Safety Data Sheet (SDS) prior to application.
- Coverage rates may vary based on surface condition/ texture and do not take into account material loss due to spraying, surface texture, surface absorption, waste, etc.

Garla-Brite

Technical Data	Garla-Brite
Flash Point (ASTM D 93)	103°F (39°C) min
Density @77°F (25°C) (ASTM D 1475)	8.51 lbs./gal. (1.02 g/cm³)
Typical Drying Time @ 50% RH, 77°F (25°C)	Overnight
Service Temperature Extended Exposure	-20°F to 230°F (-29°C to 110°C)
Non-Volatile (ASTM D 2824)	45% min
Resistance to Sunlight	Excellent
Effects of Weathering	Slow erosion
Wet Film Thickness @ 1 gal. (3.8 l)	16 mils (406.4 microns)
Coverage Smooth or Mineral	0.5-0.75 gal/100 sq. ft. per coat (0.20-0.30 l/m² per coat) 2 coat application
Metal Roofs	0.20-0.25 gal/100 sq. ft. per coat (0.08-0.10 l/m² per coat) 2 coat application
Shelf life	1 year
Packaging	3 gallon pail (11.4 l) 5 gallon pail (18.9 l)

For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.

Eco-Facts	Garla-Brite	
VOC	< 500 g/l	
	Initial	3 Yr. Aged
Reflectance	0.74	0.65
Emittance	0.33	0.33
SRI	77	60



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Green-Lock® Plus

High-Performance Flashing Adhesive



OVERVIEW & FEATURES

Green-Lock Plus Flashing Adhesive is a trowel grade, cold applied, zero VOC, 100% polyether moisture-cured flashing adhesive. Green-Lock Plus Flashing Adhesive is an ideal cold process adhesive for modified bitumen base sheets and modified bitumen cap sheets because it bonds tenaciously to SBS modified bitumen membranes. It is used to apply flashings in conjunction with Garland's regular cold applied or Garland hot applied SBS modified roofing systems.

The Green-Lock Plus Flashing Adhesive system consists of a multi-ply flashing application beginning with a base ply of Garland's two-ply base sheets followed by one of Garland's StressPly® family of smooth or mineral membranes as cap sheets. The result is a high performance, solvent free, multi-ply, modified cold applied flashing system.

Solvent Free - Green-Lock Plus Flashing Adhesive uses polyether technology which contains no solvents. Being solvent free means there will be no adverse effects that are typically associated with solvent based products, including odors, sheet softening, compound damage, solvent blisters, etc. Green-Lock Plus Flashing Adhesive also contains zero VOCs, making it an environmentally friendly option.

Polyether Technology - Green-Lock Plus Flashing Adhesive is a moisture cured polymer that reacts with the moisture in the air to become a strong, tough and resilient rubber. It bonds the flashing system together, holding it securely both to the wall/flashing and underlying roof system. It also cures much quicker than standard solvent based adhesives.

Accelerated Curing - Green-Lock Plus Flashing Adhesive will cure in one to five days depending on climatic conditions, as compared to 30 days or more for traditional solvent based cements. Green-Lock Plus Flashing Adhesive becomes tack-free within an hour so there is less chance of tracking the material, therefore keeping the roof cleaner.

Easy Trowel Grade Consistency - Green-Lock Plus Flashing Adhesive is formulated to a trowel grade consistency which makes it much easier to apply. The material adheres to the substrate that it is applied to without any vertical sagging or flow. It has tremendous green strength holding the modified base sheet and modified cap sheet in place until they can be mechanically attached and properly detailed and secured.

Environmentally Friendly - Green-Lock Plus Flashing Adhesive contains zero VOCs and is 100% solids and solvent free. This non-asphaltic formulation is very low odor and it lowers the carbon footprint of roofing assemblies.

APPLICATION

Green-Lock Plus Flashing Adhesive is ready to use immediately. In cool weather, store all flashing cement containers at 70°F (21°C) for 24 hours before use. Applying cold cement to a cold substrate will increase the application rate of the adhesive due to the increase in the viscosity of the adhesive.

Using the width of the roll as the maximum length of the flashing membrane, precut the flashing membrane pieces to the proper height, extending out onto the field of the roof a minimum of 9" (228.6 mm). All cutting shall be completed on a piece of plywood in order to prevent cutting the roof membrane. All flashing work shall start at the low point of the roof. The first flashing piece installed shall be one half the normal length of the flashing pieces in order to stagger the laps with the field membrane laps.

On a separate piece of plywood or base sheet, turn the precut flashing pieces "bottom side up." Trowel the Green-Lock Plus Flashing Adhesive at a rate of 2-3 gallons per 100 sq. ft. (0.82-1.2 L/m²) to the entire bottom of the flashing piece, covering it completely. Pick up the coated flashing membrane and press it into position. Apply hard pressure to the entire surface of the membrane, making sure all air pockets are removed and 100% contact with the substrate was obtained. Install the termination bars/flashing details.

Coverage rates - Apply 2 to 3 gallons per 100 sq. ft. (0.82-1.2 L/m²) to the flashing ply and 2 to 3 gallons per 100 sq. ft. (0.82-1.2 L/m²) to the base ply for a total of 4 to 6 gallons per 100 sq. ft. (1.6-2.4 L/m²) with a 1/8" (3 mm) notched trowel. Bleed out at all overlap edges should be visible to ensure complete contact. The flashing should be mechanically secured at the end of each work day.

PRECAUTIONS

- Coverage rate increases over more porous insulation
- Roofing granules must be installed in adhesive bleed out prior to applying reflective coatings
- Must allow adhesive to cure for 21 days before applying any roof coatings due to staining
- Do not mix water into the pails of adhesive
- Do not use in freezing conditions and do not apply the adhesive over ice or moisture
- Do not apply the adhesive in the rain

Green-Lock Plus

High-Performance Flashing Adhesive

Technical Data	Green-Lock Plus Flashing Adhesive
Flash Point	400°F (232°C)
Density @ 77°F (25°C) (ASTM D 1475)	11.8 lbs./gal. (1.17 g/m ³)
Non-Volatile (ASTM D 4586)	100%
Viscosity @ 77°F (25°C) (ASTM D 2196)	122,500 cP
Tensile Strength (ASTM D 412)	110 psi (0.76 MPa)
Tack-Free Time @ 70°F (21°C) and 50% Humidity (ASTM C 679)	100 minutes
Shelf Life	12 months
Color	Dark Slate Gray
Carrier	Water
Coverage	4 to 6 gal./100 sq. ft. (1.6-2.4 L/m ²)
Packaging	3.5 gal. (13.2 L) pail

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GLPLUS-FA 0822

Green-Lock® Plus

High-Performance Membrane Adhesive



OVERVIEW & FEATURES

Green-Lock Plus Membrane Adhesive is a high-performance moisture-cured polymer adhesive used to construct cold process roofing systems on single or multiple plies of Garland approved base sheets and Garland approved membranes. The result is a high performance, solvent free, cold applied multi-ply modified bitumen roof system with an outstanding life span that functions equally well on flat surfaces and slopes up to 3:12. Green-Lock Plus Membrane Adhesive is easy to apply by squeegee.

Versatile - Green-Lock Plus Membrane Adhesive is approved for use with Garland's approved base and cap sheets. Green-Lock Plus Membrane Adhesive can be directly applied to G-P Gypsum DensDeck Prime®, DensDeck DuraGuard®, SecuRock®, or high density asphalt coated wood fiberboard. Green-Lock Plus Membrane Adhesive can also be used as a surfacing adhesive to adhere roofing aggregate. Compatible with asphalt-based roofing mastics, adhesives and sealers and resists softening and staining of modified bitumen membranes.

Environmentally Friendly - Green-Lock Plus Membrane Adhesive contains zero VOCs and is 100% solids and solvent free. This non-asphaltic formulation is very low odor and it lowers the carbon footprint of roofing assemblies.

APPLICATION

In cool weather, store all adhesive containers at 70°F (21°C) for 24 hours before use. Applying cold adhesive to a cold substrate will increase the application rate of the adhesive due to the increase in the viscosity of the adhesive. The adhesive is to be applied at a minimum application temperature of 50°F (10°C) and rising.

Interply - Starting at the low point on the roof, the salvage edge of the sheet shall be "up slope." Unroll cap sheet and base sheet and allow to relax; this will aid a flat uniform application - re-roll prior to application. Snap chalk lines in areas where application of the adhesive to the sheet will occur. Pour a liberal amount of the adhesive on the roof substrate and use a 3/8" notched squeegee to spread the adhesive covering the entire substrate at a minimum application rate of 2-2.5 gal./100 sq. ft. (0.82- 1.02 L/m²). Uneven surfaces may require additional adhesive. Recommended coverage rates are 2-2.5 gal./100 sq. ft. (0.82- 1.02 L/m²) for the base ply and 2-2.5 gal./100 sq. ft. (0.82- 1.02 L/m²) per interply or cap sheet.

Unroll the sheet into the wet adhesive and repeat the adhesive application procedure for the next roll/sheet covering any head or side laps as required. If desired, the adhesive can be applied to the side laps and head laps with a 4" (101 mm) wide medium nap roller. If curling occurs on the head laps, adhesive can be applied to both bonding surfaces. This will hold the head laps in place. Apply a temporary weight if necessary. Roll the entire surface of the membrane with a lawn roller to ensure adhesion to the substrate. Apply roofing granules into the adhesive bleed out at 28 lbs./100 sq. ft.

Flood Coat - To apply Green-Lock Plus Membrane Adhesive as a flood coat, sweep or blow away any dust, dirt or debris off the cap sheet. Then pour a liberal amount of Green-Lock Plus Membrane Adhesive onto the cap sheet at a rate 4-5 gal./100 sq. ft. (1.63-2.0 L/m²). Finally, broadcast 400 lbs./100 sq. ft. (181 kg/9.29m²) of gravel immediately into the adhesive.

PRECAUTIONS

- Not a sprayable product; dispense only by Garland-approved methods
- High levels of humidity decreases work time of product
- May only be used as a flood coat on new, smooth or mineral surfaces
- Only use as a flood coat on smaller projects due to quick cure time
- Coverage rate increases over more porous insulation
- Roofing granules **must** be installed in adhesive bleed out prior to applying reflective coatings
- Must allow adhesive to cure for 21 days before applying any roof coatings due to staining
- Do not mix water into the pails of adhesive
- Do not use in freezing conditions and do not apply the adhesive over ice or moisture
- Do not apply the adhesive in the rain
- Must be kept at 40°F (4.4°C) and rising
- Do not heat-weld seams

Green-Lock® Plus

Technical Data	Green-Lock Plus Membrane Adhesive
Flash Point (ASTM D 93)	400°F (232°C)
Density @ 77°F (25°C) (ASTM D 1475)	11.4 lbs./gal. (1.36 g/m³)
Non-Volatile (ASTM D 4586)	100%
Slope Limitations	3:12
Viscosity @ 73.4 ± 2°F (23 ± 2°C) Brookfield Spindle T-E, 5 RPM	124,000 cPs
Tack-Free Time @ 70°F (21°C) and 50% Humidity	4-6 hours
Color	Slate
Shelf Life	12 months
Coverage Interply	2 - 2.5 gal./100 sq. ft. (0.82 - 1.02 L/m²)
New Flood Coat	4 - 5 gal./100 sq. ft. (1.63-2.04 L/m²)
Wet Mil Thickness Interply	32 - 40 mils
New Flood Coat	64 - 80 mils
Packaging	5 gallon pail (18.9 L)

Eco-Facts	Green-Lock Plus Membrane Adhesive
VOC	0 g/L

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.



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GLMA 0822

OVERVIEW & FEATURES

Insul-Lock HR is a highly elastomeric, one step, VOC compliant, high rise roof insulation adhesive that contains no solvents and sets in minutes. Insul-Lock HR is designed to give you the benefits of a two component insulation adhesive without the errors of improper mixing. Insul-Lock HR was designed for bonding approved roof insulations to a building's structural roof deck, base sheets, other insulation boards, smooth and mineral roof systems or properly prepared coal tar and asphalt graveled built-up roof surfaces.

Ease of Installation - Insul-Lock HR is an easy-to-apply, self contained, two-component insulation adhesive that does not require manual or mechanical mixing. Mixing is done through a static mixing tip. Simply apply Insul-Lock HR in 1/4 in. – 1/2 in. (0.64 cm – 1.27cm) wide beads 12 in. o.c. per 4 ft. x 4 ft. insulation board. Simply place, do not slide, the boards into the adhesive.

High-Rise - Insul-Lock HR provides an alternate attachment method for the application over gravel roofs. Insul-Lock HR will rise to adhere insulation board to properly prepared gravel roof systems, eliminating the labor cost involved in fastening to all types of decks.

No Deck Penetration/No Fastener Backout - Leaving the deck completely intact lessens the possibility of structural damage and moisture entry while preventing the disruption of interior operations. Eliminating fasteners not only prolongs the life of the waterproofing system, but it also eliminates the potential for thermal bridging and a future cause of leaks.

Versatile and Low Odor - Insul-Lock HR is compatible with a variety of insulation types that are listed on the back. It provides a fast set in a variety of temperatures. The low odor nature of this product makes it a perfect fit for sensitive environments, such as schools and hospitals and a must for all environmentally conscious facilities. Insul-Lock HR is a VOC compliant solution that will not disrupt building occupants.

APPLICATION

All work surfaces should be clean, dry, free of dirt, dust, debris, oils, loose gravel, unadhered coatings, deteriorated membrane and other contaminants that may result in a surface that is not sound or is uneven.

Prior to the application of Insul-Lock HR over gravel or mineral re-cover applications, be sure to remove all gravel or debris before applying Insul-Lock HR Universal Primer at a rate of 150 – 250 sq. ft. (13.94 – 23.22 m²) per gallon.

Insul-Lock HR in new construction or mineral re-cover applications is applied at a rate of 600 sq. ft. (55.74 m²) per case. Over irregular surfaces, the coverage rate will vary and may be reduced to 300 – 400 sq. ft. (27.87 – 37.16 m²) per case. Perimeters and corners require more adhesive, see application guide.

Snap off the molded cap on the top of the adhesive cartridge and screw on the mixing tip. Attach a mixing tip to the threaded mixing head. Place the cartridge into the appropriate Insul-Lock HR applicator. Apply Insul-Lock HR adhesive directly to the substrate, using a ribbon pattern. Space 1/4 in. – 1/2 in. (0.64 cm – 1.27cm) wide beads, 12 in. o.c. (30.5 cm), to achieve proper coverage rates for insulation attachment. As Insul-Lock HR adhesive is applied, immediately place insulation board into wet adhesive. Do not allow the adhesive to skin over. Eliminate uneven surfaces to ensure positive contact between the insulation board and substrate. Unused material can be applied at a later date by simply plugging the cartridges (with provided half moon plugs) and using a new Insul-Lock HR cartridge tip.

STORAGE

Insul-Lock HR Insulation Adhesive has a shelf life of 12 months. Insul-Lock HR should be stored at room temperature 65°F to 85°F (18°C to 29°C) for at least 24 hours prior to using the product.

PRECAUTIONS

- Do not apply to a wet surface.
- Not recommended for use with insulation boards larger than 4 ft. x 4 ft. (1.22 m x 1.22 m).
- Do not use warped or curled insulation boards. All insulation boards must lay flat upon the roof surface.
- Do not apply Insul-Lock HR Adhesive over a smooth or sanded APP or single-ply roof surface.

Insul-Lock® HR

Technical Data	Insul-Lock HR
Tensile Strength (ASTM D 412)	250 psi
Density (ASTM D 1875)	8.5 lbs./gal.
Viscosity (ASTM D 2556)	22,000 – 60,000 cP
Peel Strength (ASTM D 903)	17 lb./in.
Flexibility (ASTM D 816)	Pass @ -70°F (-56.7°C)
Shelf Life	1 year
Packaging	4 – 50.7 oz. (1.5 l) Cartridges/Case 600 sq. ft. (55.74 m²) case

COVERAGE

Existing Roof Surface	Board Size	Bead Size
Smooth 600 sq. ft. (55.74 m²)/Case	4x4	1/4 in. – 1/2 in. (0.64 – 1.27 cm) beads 12 in. (30.5 cm) o.c.
Irregular 300–400 sq. ft./case (27.87 – 37.16 m²) Coverage rates may vary	4x4	1/4 in. – 1/2 in. (0.64 – 1.27 cm) beads 12 in. (30.5 cm) o.c.

For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.

APPROVED DECKS AND INSULATION

Decks

Structural concrete
Gypsum with nailed base sheet
Tectum with nailed base sheet
Steel
Lightweight concrete with nailed base sheet
Treated wood with nailed base sheet

Insulation

Wood Fiber
Polyisocyanurate
Perlite (min. 3/4 in.)
SecuRock
Dens Deck
Polystyrene

Please see the most current Factory Mutual RoofNav for the most up to date system approval.

Eco Facts	Insul-Lock HR
VOC	0 g/l



The GreenLock Membrane Adhesive product is protected by U.S. Patent #7,772,301.

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Metal Roof Primer



OVERVIEW & FEATURES

Metal Roof Primer is a high-quality, fast drying water-based rust inhibitive primer. Metal Roof Primer is designed to prime the surface and help prevent rust growth. This primer can be used with several Garland waterproofing systems to seal and protect a variety of metal roof systems and surfaces.

User Friendly - Roller, brush or spray applied - The ease of application makes Metal Roof Primer fast and simple to use.

Versatile - The Metal Roof Primer is designed to maintain and protect metals from rusting and breaking down. Metal Roof Primer protects and preserves investments like HVAC equipment, vent work, gas pipes, metal panels, interior railings and other equipment before oxidation and rust deteriorate metal. This will increase the life of the metal components, saving time and money.

APPLICATION

All surfaces must be sound, dry, clean and free of oil, dirt, grease, wax, mildew, loose or flaking paint and rust.

Wearing protective clothing, gloves and glasses, remove any mildew by washing with a solution of three quarts of warm water and TSP or Simple Green solution. Rinse thoroughly. Dull all hard or glossy surfaces by sanding to assure maximum adhesion. Wipe galvanized surfaces clean with denatured alcohol prior to application.

This product can be applied by spray, brush or roller. For brushing and rolling, use a synthetic brush or roller of appropriate size and/or nap for the surface being painted. Recommended spray equipment minimum Graco Ultra Max 595 (3,300 psi; 0.70 GPM) - Ultra Max 1595 (3,300 psi; 1.35 GPM).

Apply Metal Roof Primer over a small area at 8 wet mils or 1/2 gal/100 sq. ft. (0.21 l/m²).

NOTE: For specific metal preparation information, contact your local Garland Representative.

NOTE: Use water for clean up.

PRECAUTIONS

- Do not apply when ambient temperatures are below 50°F (10° C), there is a possibility it could fall below 32°F within (0°C) within 24 hours of application, or rain is in the forecast.
- To avoid dew point conditions during application, substrate temperature must be at least 5°F (3°C) above measured dew point temperatures.
- Do not leave product exposed to the elements for more than 24 hours before top coating.
- See Safety Data Sheet for additional safety information and specific product analysis.
- Storage: Material should be stored between 40°F and 70°F.
- Coverage rates may vary based on surface condition/texture and do not take into account material loss due to spraying, surface texture, surface absorption, waste, etc.
- Multiple coats may be necessary on verticals and steep slope to prevent sagging.

Technical Data	Metal Roof Primer
Solids by Volume	41% ± 2.0%
Viscosity	800 ± 200 cP
Weight/gal.	10 lbs. ± 0.2
Color	Red
Shelf Life	1 year
Coverage	1/2 gal. per 100 sq. ft. (0.21 l/m ²)
Packaging	5 gal. pail (18.9 l)

Eco-Facts	Metal Roof Primer
VOC	< 65 g/L

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

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R-Mer® Seal

Metal Roofing Underlayment

OVERVIEW & FEATURES

R-Mer Seal is a self-adhering high-temperature metal roofing underlayment. It is composed of a durable, non-slip, cross-laminated polymer film laminated to a high-temperature rubberized asphalt adhesive. A split release film protects the adhesive on the back side of the membrane and prevents the roll from sticking to itself during storage and handling.

R-Mer Seal is engineered for use as a continuous secondary waterproofing underlayment under Garland's metal roof systems. R-Mer Seal can also be used in valleys, ridges, penetrations and at eaves for protection against ice dams and wind driven rain. It can also serve as an underlayment for asphalt shingles, coping caps, and edge metal applications.

Aggressive Adhesion – R-Mer Seal is formulated with high temperature rubberized asphalt for reliable protection. R-Mer Seal exhibits superior adhesion to the roof deck and strong lap strength, ensuring long-term watertight protection. Quality-controlled manufacturing ensures uniform film thickness throughout each roll.

Flexible & Self-Healing – The rubberized adhesive compound yields a flexible membrane with excellent elongation capabilities and tensile strength to accommodate the expansion and contraction of the substrate. The rubberized adhesive layer also exhibits self-healing capabilities and accommodates the use of fasteners, staples, nails, and screws while maintaining a watertight seal.

Easy Installation – The peel and stick application and overlap guidelines make installation fast and easy. R-Mer Seal's cross-laminated polymer film provides an excellent slip-resistant surface for installers.

High-Temperature Rating – R-Mer Seal is able to withstand the elevated temperatures of a rooftop environment without degrading or losing its waterproofing capabilities.

APPLICATION

R-Mer Seal adheres to metal, plywood, OSB, rigid vinyl, polyisocyanurate insulation and masonry substrates. R-Mer Seal is intended for use on roof decks with slopes of 2:12 and higher.

All surfaces must be in sound condition and free of dirt, debris, or dust. Prime all substrates to be waterproofed with SA Primer™ at a rate of 0.5 gal./100 sq. ft. (0.21 l/m²). Primer is not required when adhering to polyisocyanurate insulation.

Apply the membrane in lengths up to 18 feet. Overlap all seams a minimum 3" on the side laps and 6" on the head laps. Roll the seams and overlaps of the membrane with a hand roller to ensure complete adhesion with no voids, wrinkles, or fishmouths. The membrane should not be folded over the roof edge unless covered by a gutter, mechanically fastened every 6" or protected with other flashing materials.

PRECAUTIONS

- Do not expose to direct sunlight for more than 90 days.
- Store in original packaging and out of direct sunlight
- Must be installed in 50° F (10° C) and rising weather; contact your Garland representative or the Garland Technical Department for recommendations when temperatures are below 50° F (10° C)
- R-Mer Seal should not be applied during inclement weather and the installation should not proceed in the event that precipitation is probable during the application
- All substrates, except polyisocyanurate insulation, must be primed with SA Primer
- Do not use over silicone caulking or flexible vinyl gaskets
- Do not install over solvent-based sealants unless fully cured and dry to the touch

R-Mer® Seal

Technical Data	R-Mer Seal
Thickness (ASTM D 5147)	45 mils (1.14mm)
Vapor Permeance (ASTM E 96)	<0.02
Flexibility @ -20°F (-28.88°C) (ASTM D 1970)	Pass
Tensile Strength (ASTM D 1970)	MD 32 lbs./in. (0.57 kg/mm) XD 35 lbs./in. (0.62 kg/mm)
Nail Sealability (ASTM D 1970)	Pass
Maximum Temp.	250°F (121.11°C)
Installation Temp.	50-100°F (10-37.7°C)
Color	White
Net Coverage	200 sq. ft. (18.5 m²)
Packaging	30 rolls/pallet

Roll Dimensions	R-Mer Seal
Width	3 ft. (0.91m)
Length	73 ft. (22.25 m)
Weight	60 lbs. (27.2 kg)

For specific application recommendations, please contact your local Garland Representative or Garland Technical Department.

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StressBase® 80 Plus



OVERVIEW & FEATURES

StressBase 80 Plus is a high-strength, puncture and fatigue resistant, modified roofing membranes that consists of fiberglass reinforcement sandwiched by Styrene-Butadiene-Styrene (SBS) rubber in a high penetration index asphalt mixture.

StressBase 80 Plus sheets can be used as a nailable base sheet over approved substrates, as a base flashing for hot- and cold-applied roof systems or as an interply in Garland's hot or cold applied systems. StressBase 80 Plus is typically used in two (2) or three (3) ply modified systems and also can be used in three (3) or four (4) ply BUR's.

Advanced Rubber Technology - The modifier utilized is SBS (Styrene-Butadiene-Styrene). When the SBS rubber is properly dispersed throughout the high penetration asphalt, the rubber provides increased thermal shock resistance, UV protection, heat resistance, elongation, and low temperature flexibility. To ensure proper dispersion, a special high shear mixer is used in manufacturing.

Security in Multi-Ply Construction - StressBase 80 Plus sheets are the base component of a multi-ply roof system. They combine the inherent advantages and proven performance of multi-ply protection with the strength, flexibility and elongation of elastomeric systems. This unique combination minimizes dependence on perfect workmanship, contact adhesive seaming, etc.

APPLICATION

Garland's StressBase 80 Plus sheets can be used in conjunction with Weatherking® and Green-Lock® to make up a cold-applied system. StressBase® 80 Plus sheets can also be used with hot asphalt or Garlastic® as a multi-ply BUR, as the underlayment for Garland's HPR® roof systems or as a base flashing ply for hot-and-cold applied roof systems. Specifications for nailing to various decks are also available.

NOTE: All rolls must be cut in 18 ft. (5.5 m) lengths and allowed to relax prior to application.

StressBase® 80 Plus

Technical Data	StressBase 80 Plus
Tensile Strength	MD 140 lbf./in. (24.5 kN/m) XD 100 lbf./in. (17.5 kN/m)
Tear Strength	MD 130 lbf. (578 N) XD 100 lbf. (444 N)
Elongation	MD 4% XD 4%
Low Temperature Flex	passes -40°F (-40°C)

Finished membrane meets and/or exceeds the performance criteria of ASTM D 6163, TYPE I.
Test Method ASTM D 5147 is tested at:
0.08 in/min @ 0 ± 3.6°F
(2.0 mm/min @ -18 ± -3°C)

Roll Dimensions	StressBase 80 Plus
Width	3 ft. 3 in. (1m)
Length	52 ft. (15.85 m)
Weight	100 lbs. (45.36 kg)
Nominal Thickness	80 mils (2,032 microns)
Net Coverage	150 sq. ft. (13.93 m²)
Packaging	24 rolls/pallet

Eco-Facts	StressBase 80 Plus
Recycled Content	
Pre-Consumer	27%
Post-Consumer	—

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

Installation of this product with hot oxidized asphalt may result in exposure to hazardous chemicals. Special care and attention for proper product installation must be followed in all cases. For specific details refer to the NIOSH safe handling practices in publication No. 2003-107, as well as OSHA standard 1910.134 for further exposure precautions.

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

StressBase, Weatherking, Green-Lock, Garlastic and HPR are trademarks of The Garland Company, Inc. and Garland Canada, Inc. Garland Greenhouse is a trademark of The Garland Company, Inc.

StressPly® Membranes

StressPly* • StressPly FR Mineral



OVERVIEW & FEATURES

StressPly membranes are high strength, puncture and fatigue resistant, rubber modified roof membranes designed for use as the waterproofing and reinforcement layer of a modified built-up roofing system. It consists of two layers of fiberglass reinforcement sandwiched by Styrene-Butadiene-Styrene (SBS) rubber in a high penetration index asphalt mixture.

StressPly membranes are designed for use as the top component in a roofing system where fire retardancy is required. StressPly membranes can also be used in conjunction with Garland's HPR® products as well as with conventional glass base sheets or fiberglass roofing felts. In addition, StressPly membranes can be used as the top ply in a two-ply flashing system. It can also be used to repair splits, cracks, and other deteriorated areas in existing asphalt based roofing systems. Specifications are available for either hot or cold applied systems.

* Garland Greenhouse product

Security in Multi-Ply Construction - StressPly membranes are the top component of a multi-ply roof system. It combines the inherent advantages and proven performance of multiply protection with the strength, flexibility and elongation of elastomeric systems. This unique combination eliminates dependence on perfect workmanship, contact adhesive seaming, etc.

Factory Formulation Reduces Labor Expense - StressPly membranes are coated at the factory with reflective mineral granules. Consequently, there's no need to flood coat and gravel or aluminize the membrane's surface. Roof projects can be completed on a more timely basis. The end result is substantial labor expense savings.

Superior Strength - The StressPly membranes are reinforced with two layers of fiberglass. The superior strength provided by the dual fiberglass scrim resists the movement created by today's modern buildings. In addition, the dual fiberglass scrim in StressPly membranes provide tensile strength in excess of 200 pounds per inch in the machine and cross machine direction. This translates to long term resistance to splits and tears in the completed StressPly roof system.

Superior Fire Resistance - StressPly FR Mineral contains a fire retardant that is added to the compound during the manufacturing process. As a result, it will maintain its fire rating for the life of the membrane. StressPly FR Mineral has a Class A fire rating over a combustible roof deck with minimal underlayment.

APPLICATION

Hot-Applied

StressPly membranes can be used with ASTM D 312, Type III or IV asphalt, Garland's HPR All-Temp Asphalt or modified asphalt. One or two plies of ASTM D 2178, Type IV or VI fiberglass felt are solidly bonded to the approved substrate. StressPly is then solidly adhered to these base layers with mopping asphalt.

Cold-Applied

StressPly membranes can also be applied in Garland's cold applied Weatherking® or Green-Lock® membrane adhesive. One or two layers of heavy duty Garland approved ASTM D 4601, Type II base sheets are applied in Weatherking or Green-Lock membrane adhesive to the approved substrate. StressPly is then adhered to these base layers with Weatherking or Green-Lock Membrane adhesive.

StressPly® Membranes

Technical Data	StressPly	StressPly FR Mineral
Tensile Strength	*MD 225 lbf./in. (39 kN/m) *XD 225 lbf./in. (39 kN/m) **MD 240 lbf./in. (42 kN/m) **XD 240 lbf./in. (42 kN/m)	*MD 225 lbf./in. (39 kN/m) *XD 225 lbf./in. (39 kN/m) **MD 240 lbf./in. (42 kN/m) **XD 240 lbf./in. (42 kN/m)
*Tear Strength	MD 300 lbf. (1335 N) XD 300 lbf. (1335 N)	MD 300 lbf. (1335 N) XD 300 lbf. (1335 N)
*Elongation	MD 6.0% XD 7.0%	MD 6.0% XD 8.0%
*Low Temperature Flex	-50°F (-46°C)	-30°F (-34.4°C)

Finished membrane meets and/or exceeds ASTM D 6163, TYPE III.

Test Method ASTM D 5147 is tested at:

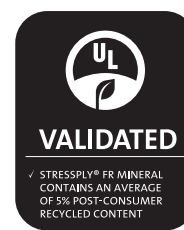
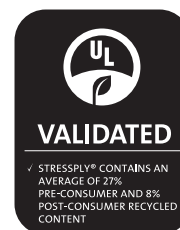
* 2 in./min @ 73.4 ± 3.6°F ** 0.08 in./min @ 0 ± 3.6°F
(50 mm/min @ 23 ± 2°C) (2.0 mm/min @ -18 ± -3°C)

Roll Dimensions	StressPly	StressPly FR Mineral
Width	3 ft. 3 in. (1m)	3 ft. 3 in. (1m)
Length	34 ft. 8 in. (10.57 m)	26 ft. 2 in. (7.98 m)
Weight	85 lbs. (39 kg)	85 lbs. (39 kg)
Nominal Thickness	120 mils (3,048 microns)	145 mils (3,683 microns)
Net Coverage	100 sq. ft. (9.29 m²)	75 sq. ft. (6.96 m²)
Packaging	25 rolls/pallet	25 rolls/pallet

Eco-Facts	StressPly	StressPly FR Mineral
Recycled Content		
Pre-Consumer	27%	—
Post-Consumer	8%	5%

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

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SP/SP FR Min 0622

UniBond™ ST

Polyester-Faced Adhesive Tape



OVERVIEW & FEATURES

UniBond ST is a high-performance, fatigue resistant, self-priming, 100% solids tape designed for use with Garland cold-process restoration systems. This versatile tape will instantly seal and reinforce seams and penetrations on a variety of metal and single-ply roof systems and components. UniBond ST bonds aggressively to a variety of surfaces, including properly prepared EPDM, TPO, Hypalon, aged PVC, CPE, metal roofs, brick, concrete, and masonry. It is formulated with synthetic resins, thermoplastics, and non-curing rubber with a woven polyester facing.

UniBond ST is used on single-ply and metal roofs in conjunction with the CPR™ White, Revitalizer™ Metal, White-Knight®/White-Stallion®, White-Knight®/White-Stallion® Plus, and cold-applied roof maintenance systems to seal roof joints, seams, tears, flashings, copings, skylights, and gutters. Extremely flexible, with no memory, UniBond ST conforms to virtually any shape. UniBond ST seals to itself so it can be cut and folded around an object. A UV stable finish coat must be applied to UniBond ST on the same day - do not expose the UniBond ST fabric surface to the elements.

Seals & Reinforces – UniBond ST seals and reinforces seams and penetrations, fusing at a molecular level to a variety of substrates to create an instant, airtight and watertight barrier. This product forms a durable, monolithic restoration system when combined with Garland cold-applied roof coating systems: CPR White, Revitalizer Metal, White-Knight/White-Stallion, or White-Knight/White-Stallion Plus.

Multi-Purpose & User-Friendly – Can be used in various applications such as sealing seams, approved flashing details, and numerous maintenance repairs. Installation is as easy as applying a piece of tape. UniBond ST's built-in primer and advanced micro-sealant adhesive technology enables instant adhesion on contact. The versatility and trouble-free application makes UniBond ST an invaluable tool for maintenance and roof restoration.

Resilient & Flexible – The 100% solids content prevents shrinkage, aiding the long-term yield of 500% elongation and enabling UniBond ST to accommodate movement.

Service Temperature – UniBond ST maintains its physical properties at temperatures as low as -70°F (-56.6°C). This allows the tape to maintain a watertight seal even in extremely cold temperatures.

APPLICATION

Surface Preparation – Substrates must be clean and dry. Remove all moisture, dust, dirt or other foreign contaminants. Remove oil and grease, etc. with mineral spirits or a non-residue cleaner such as

acetone or lacquer thinner. For larger jobs, power wash the surface with TSP or Simple Green. UniBond ST will not adhere to silicone sealants or silicone treated surfaces, water-proof treated surfaces, anti-stain treated surfaces, waxes, oily surfaces, dirt, or other loose elements on a surface.

Due to the variety of surfaces and unpredictable nature of certain substrates, a field test is recommended to determine the adhesion of UniBond ST.

Application - UniBond ST should be applied at a minimum application temperature of 40°F (4.44°C) and rising. To install UniBond ST, remove the release liner gradually to prevent contamination of the adhesive prior to application. Apply UniBond ST uniformly to prevent wrinkles and other discrepancies. **DO NOT STRETCH.**

Apply pressure starting at the center of the tape and work toward the outside edge with a steel roller or hands to activate the bonding process. Verify edges are tightly adhered to the surface.

Finish Coat - After the tape is properly adhered, the first coat of an approved Garland cold process roof coating must be applied over the polyester facing on the same day. Apply coating a minimum of 2 inches beyond the edge of the tape on each side. For specific coating application rates, see system application guidelines.

STORAGE

UniBond ST will not degrade in normal warehouse storage. In time, due to the aggressive adhesion of this product, the release liner may become difficult to remove. For this reason, the recommended shelf life is two years. Store indoors, out of direct sunlight between 60-80°F (15.6-26.7°C). Always rotate stock.

PRECAUTIONS

- Clean skin with mineral spirits, then wash thoroughly with soap and water.
- May be harmful if swallowed - do not induce vomiting; contact physician immediately.
- Keep away from heat and flames.
- Do not expose adhesive tape rolls to moisture.
- Do not use in freezing conditions.
- Do not apply the adhesive tape in the rain or over ice.

UniBond™ ST

Technical Data	UniBond ST
Tensile Strength	4500 psi
Elongation	500%
Low Temperature Flexibility Pass ½ in. radius	-70°F (-56.6°C)
Service Temperature	-30 - 200°F (-34.4 - 93.3°C)
Permeance (ASTM E 96B)	.001 perms
Adhesion	> 20 lbs./in.
Shrinkage	No measurable shrinkage after 14 days
Nominal Thickness	30 mils (1 mm)
Shelf Life	2 years
Size length width*	50 ft. (15.24 m) 4 in. (10.16 cm)
Packaging	6 rolls per case*, 300 L/ft.

*Available for special order in 6 in. or 12 in. widths, number of rolls per case will vary with roll size.

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

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UB ST 0219

Weatherking® Flashing Adhesive



OVERVIEW & FEATURES

Weatherking Flashing Adhesive is a cold process, modified adhesive used to apply flashings in conjunction with Garland's cold-applied Weatherking roofing systems. Weatherking Flashing Adhesive system consists of a multi-ply flashing application, beginning with a base ply and topped with an approved Garland HPR modified membrane. The results is a high-performance, multi-ply, modified, cold-applied flashing system.

Weatherking Flashing Adhesive is the ideal product for roofing applications involving a cold process field adhesive. It should also be considered for applications involving hot bitumen, if the flashings are difficult to apply with a standard mop. Maintenance and repair will be made faster, easier and cleaner with Weatherking Flashing Adhesive.

Brush Grade Consistency - Weatherking Flashing Adhesive's special high viscosity formulation allows the contractor to brush apply the adhesive. This important change in application will enable the adhesive to conform better to irregular substrates and greatly reduce the application time for the contractor.

UV Resistant/VOC Compliant - This high-performance polyurea adhesive protects the existing roof from the harmful effects of UV, greatly reducing thermal shock. This environmentally friendly product meets VOC regulations to ensure that excessive amounts of solvent vapors are not released into the atmosphere.

Cold Process - This unique cold process adhesive does not require torches or kettles for application, allowing for a more organized set up area and less odor on the job.

Superior Heat and Sag Resistance - A unique blend of fillers and fibers provides excellent adhesion at increased slopes and temperatures.

PRECAUTIONS

As with all cold process materials, full cure is dependent upon application rate, time and temperature. Lingering odors are expected until product achieves full cure.

Weatherking® Flashing Adhesive

Technical Data	Weatherking Flashing Adhesive
Non-Volatile (ASTM D 4479)	Typical 70%
Density @ 77°F (25°C) (ASTM D 1475)	8.6 lbs./gal. (1.03 g/cm ³)
Flash Point (ASTM D 93)	min. 100°F (37.7°C)
Viscosity @ 77° F (25° C) Brookfield RVT, #6 Spindle; 2.5 RPM	16,000-200,000 cP
Shelf Life	1 year
Coverage	2-3 gal/100 ft. ² (0.82 - 1.22 l/m ²)
Packaging	5 gallon pail (18.9 l)

Eco Facts	Weatherking Flashing Adhesive
VOC	< 250 g/l
Recycled Content	
Post Consumer	N/A
Post Industrial	5.5%

For specific recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.



Cements and Coatings for
Roofing Systems as to
External Fire Exposure <45P1>



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OVERVIEW & FEATURES

Weatherking is a cold process modified adhesive that contains advance fiber formulations to provide superior sag resistance with exceptional weatherability. A unique blend of Styrene- Ethylene- Butadiene-Styrene and Styrene-Isoprene-Styrene (SEBS and SIS) modifiers maintain flexibility and provides excellent UV resistance and heat stability. A Weatherking roofing system is constructed with multiple plies of Garland's HPR® Tri-Base Premium, HPR Glasbase, HPR Premium Glasbase, or one of Garland's 2-Ply modified base sheets. It can also be used with two plies of approved generic base sheets with a top ply of an approved Garland modified membrane. The result is a high-performance, cold applied built-up roof system with an outstanding lifespan that functions equally well on flat surfaces and slopes up to 3:12 for Weatherking and 2:12 for Weatherking Plus WC.

Long-Term Security from Multi-Ply Construction - The Weatherking system combines the strength and proven performance of a multi-ply configuration with the durability of an elastomeric roof system. It offers an effective roof replacement solution in areas where hot asphalt or torch systems are not practical. This high-performance roofing system represents a concerted development effort by Garland researchers combined with years of practical problem-solving field experience.

Superior Polymers and Sag Resistance - Advanced fiber formulation provides excellent slope resistance allowing Weatherking to be applied on slopes up to 3:12. This unique polymer blend includes both SEBS and SIS rubber which allows Weatherking Plus to maintain flexibility and offer improved UV resistance.

Superior Puncture and Abrasion Resistance - Because of the added density of the coated base sheet, the Weatherking system is thicker and stronger than conventional single-ply. The thicker the roof system is, the better it is equipped to combat puncture and abrasion. Furthermore, the Weatherking system is Factory Mutual Class 1A approved when installed according to published guidelines.

Cold Process Formulation - Weatherking modified adhesive is VOC compliant to ensure that excessive amounts of solvent vapors are not released into the atmosphere. The use of Weatherking also eliminates the need for kettles and torches on roof applications. This environmentally friendly product meets VOC regulations to ensure that excessive amounts of solvent vapors are not released into the atmosphere.

Reduces Risk During Application - Applied by up-to-date, easy handling techniques, the Weatherking systems speed up installation, and thereby effectively reduce labor time on the roof. On small jobs, or when your Garland Representative determines that only partial roof replacement is necessary, cold-applied Weatherking systems installation costs are less since no heavy equipment or large crew is required.

APPLICATION

Starting at the low point on the roof, the salvage edge of the sheet shall be "up slope." Unroll cap sheet and base sheet and allow to relax, this will aid a flat uniform application - re-roll prior to application. Snap chalk lines in areas where application of the adhesive to the sheet will occur. Pour a liberal amount of the adhesive on the roof substrate and then using flat or a 1/8" notched squeegee, spread out the adhesive covering the entire substrate at a minimum application rate of 2 to 2.5 gallons per 100 sq. ft. (0.82- 1.02 l/m²). Uneven surfaces may require additional adhesive.

Unroll the sheet into the wet adhesive and repeat the adhesive application procedure for the next roll/sheet covering any head or side laps as required. If desired, the adhesive can be applied to the side laps and head laps with a 4" (101 mm) wide medium nap roller. If curling occurs on the head laps, adhesive can be applied to both bonding surfaces. This will hold the head laps in place. Apply a temporary weight if necessary.

PRECAUTIONS

As with all cold process materials, full cure is dependent upon application rate, time and temperatures. Lingering odors are expected until product achieves full cure.

Weatherking®

Technical Data	Weatherking	Weatherking Plus WC
Non-Volatile (ASTM D 4479)	Typical 70%	Typical 78%
Density @ 77°F (25°C) (ASTM D 1475)	8.9 lbs./gal. (1.07 g/cm ³)	9 lbs./gal. (1.07 g/cm ³)
Flash Point (ASTM D 93)	min. 100°F (37.7°C)	min. 100°F (37.7°C)
Viscosity Stormer (ASTM D 562)	400 – 500 grams	900 – 1100 grams
Slope Limitations	3:12	2:12
Shelf Life	1 year	1 year
Coverage Interply Flood Coat	2 – 2.5 gal/100 ft. ² (0.82 – 1.02 l/m ²) 4 – 5 gal/100 ft. ² (1.63 – 2.04 l/m ²)	2 – 2.5 gal/100 ft. ² (0.82 – 1.02 l/m ²) 4 – 5 gal/100 ft. ² (1.63 – 2.04 l/m ²)
Packaging	5 gallon pail (18.9 l) 55 gallon drum (208.2 l)	5 gallon pail (18.9 l) 55 gallon drum (208.2 l)

For specific application recommendations and coverage rates, please contact your local Garland Representative or Garland Technical Service Department.

Eco-Facts	Weatherking	Weatherking Plus WC
VOC	300 g/l	250 g/l
Recycled Content Post Consumer Post Industrial	N/A 1.62%	N/A 6.69%



Cements and Coatings for
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OVERVIEW & FEATURES

WeatherScreen is a heavy-bodied, rubberized, fiber reinforced, fire-rated restoration treatment designed to restore gravel surfaced modified bitumen membranes and asphalt-based BUR systems. WeatherScreen restores and upgrades the weathering surface of the existing roof system with a superior protective surface and enhances the appearance of aged roof systems. An application of WeatherScreen as part of a comprehensive roof restoration system will add many additional years of performance to the existing roof system.

Extend Roof Life - A timely application of WeatherScreen, coupled with an effective preventive maintenance program, ensures the deck and insulation are kept dry and intact. This will extend the life of the roof system and save future roofing dollars by allowing for the possibility of retrofitting.

Strengthen - WeatherScreen's performance qualities are greatly superior to conventional mopping asphalt. The mineral additives in WeatherScreen create a tougher and more durable surfacing than typical asphalt. When this product is used in place of standard hot-mopped asphalt, WeatherScreen increases the tensile strength and weathering capabilities of the roofing membrane.

Fire Resistance - WeatherScreen is formulated with a superior fire retardant during the manufacturing process. This allows for a Class A approval for use over existing or newly constructed modified bitumen or BUR roofs. In addition, a WeatherScreen application over an existing Class B or Class C system can enable that system to qualify for a Class A rating.

Environmentally Friendly - WeatherScreen uses very little solvent and meets VOC requirements. WeatherScreen is cold applied, eliminating the need for torches and hot kettles.

APPLICATION

Ensure that wet conditions do not exist. An infrared roof scan is highly recommended to detect wet insulation. Remove all wet insulation, loose gravel, dirt and debris from the existing roof to ensure proper adhesion. Make all necessary repairs and upgrade flashings. Priming is recommended.

Apply WeatherScreen at a rate of 4-5 gal./100 ft.² (1.63-2.04 l/m²) over newly constructed BUR and modified systems. Use 6-8 gal./100 ft.² (2.44 - 3.26 l/m²) for restoration applications over previously graveled surfaces. Slopes are restricted to 3:12 (25 cm/m) at 77°F (25°C) maximum.

PRECAUTIONS

- Do not apply over wet surfaces
- As with all cold process materials, full cure is dependent upon application rate, time and temperatures
- Lingering odors are to be expected until product achieves full cure
- Please read product label and SDS

WeatherScreen™

Technical Data	WeatherScreen
Non-Volatile (ASTM D 4479)	Typical 75%
Density @ 77°F (25°C)	9.1 lbs./gal. (1.10 g/cm³)
Viscosity @ 77°F (25°C) Stormer, round blade	20 - 25 sec
Wet Film Thickness New Flood Coat 4 - 5 gal./100 ft. ² (1.63 - 2.04 l/m ²) Restoration 6 - 8 gal./100 ft. ² (2.44 - 3.26 l/m ²)	64 - 80 mils (1,625.6 - 2,032 microns) 96 - 128 mils (2,438.4 - 3,251.2 microns)
Asphalt Content (ASTM D 4479)	63% (by weight)
Flash Point (ASTM D 93)	105°F (41°C)
Uniformity (ASTM D 4479)	Pass
Shelf Life	1 year, unopened
Coverage New Flood Coat Restoration	4 - 5 gal./100 ft. ² (1.63 - 2.04 l/m ²) 6 - 8 gal./100 ft. ² (2.44 - 3.26 l/m ²)
Packaging	5 gal. pail (18.9 l) 55 gal. drum (208.2 l)

Eco-Facts	WeatherScreen
VOC	< 300 g/L
Recycled Content Post Industrial	2.30%

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.



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Avonmouth, Bristol UK BS11 8DF
Phone: 011 44 1174 401050 (Outside UK)
Toll Free: 0800 328 5560 (Only in UK)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

WeatherScreen is a trademark of The Garland Company, Inc.

Notes:

1. Lowest Responsive Bid in RED.
2. Alternate #1 Scope of Work highly recommended for Club House Building to alleviate smell concerns.

City of Auburn Hills

2024 Roof Replacement Project - Fieldstone Golf Club

Bid Result Tabulation

Fieldstone Golf Club - Sections A-E

BASE BID #1: Club House Sections A/B

<u>Contractor</u>	<u>Contractor Bid Form Part A</u>	<u>Omnia Partner Bid Form Part B</u>	<u>Total</u>
Schena Roofing	\$136,949.00	\$45,701.87	\$182,650.87
Royal Roofing Co., Inc.	\$129,800.00	\$46,272.11	\$176,072.11
JD Candler	\$162,900.00	\$40,326.17	\$203,226.17
Schreiber Roofing	\$168,000.00	\$48,369.92	\$216,369.92
	\$0.00	\$0.00	\$0.00

Base Bid #2: Club House Section C

<u>Contractor</u>	<u>Contractor Bid Form Part A</u>	<u>Omnia Partner Bid Form Part B</u>	<u>Total</u>
Schena Roofing	\$76,799.00	\$41,817.21	\$118,616.21
Royal Roofing Co., Inc.	\$75,600.00	\$32,850.78	\$108,450.78
JD Candler	\$110,770.00	\$29,231.34	\$140,001.34
Schreiber Roofing	\$106,000.00	\$41,556.84	\$147,556.84
	\$0.00	\$0.00	\$0.00

Alt. #1: Club House Section C

<u>Contractor</u>	<u>Contractor Bid Form Part A</u>	<u>Omnia Partner Bid Form Part B</u>	<u>Total</u>
Schena Roofing	\$85,487.00	\$66,662.25	\$152,149.25
Royal Roofing Co., Inc.	\$76,400.00	\$49,147.17	\$125,547.17
JD Candler	\$110,770.00	\$39,935.22	\$150,705.22
Schreiber Roofing	\$106,000.00	\$56,573.16	\$162,573.16
	\$0.00	\$0.00	\$0.00

Add Alt. #1: Cart Barn Section D

<u>Contractor</u>	<u>Contractor Bid Form Part A</u>	<u>Omnia Partner Bid Form Part B</u>	<u>Total</u>
Schena Roofing	\$54,273.00	\$20,459.84	\$74,732.84
Royal Roofing Co., Inc.	\$37,800.00	\$19,376.78	\$57,176.78
JD Candler	\$49,292.00	\$17,843.27	\$67,135.27
Schreiber Roofing	\$58,000.00	\$22,820.00	\$80,820.00
	\$0.00	\$0.00	\$0.00

Add Alt. #2: Maintenance Building Section E

<u>Contractor</u>	<u>Contractor Bid Form Part A</u>	<u>Omnia Partner Bid Form Part B</u>	<u>Total</u>
Schena Roofing	\$65,802.00	\$51,975.50	\$117,777.50
Royal Roofing Co., Inc.	\$29,700.00	\$48,605.54	\$78,305.54

JD Candler	\$72,300.00	\$50,717.21	\$123,017.21
Schreiber Roofing	\$52,000.00	\$52,441.79	\$104,441.79
	\$0.00	\$0.00	\$0.00

Bid Form: Part A

2023 Roof Replacement Project

To: Laura Pierce, City Clerk
City of Auburn Hills
1827 N. Squirrel Rd.
Auburn Hills, MI 48326

Bid Due Date: February 7th, 2024 @ 10AM

Scaled bids, in triplicate, are to be submitted to the above address by the time and date listed above. Bids received after the Due Date and Time will not be considered.

Pursuant to notices given, the undersigned proposes to furnish all materials and labor necessary to complete the replacement as described below and in strict accordance to the plans and specifications dated **11-13-23**. I, the undersigned, having familiarized myself with the attached Contract Documents do hereby propose to furnish all labor, equipment, materials, drayage, tolls, supervision, etc. and to complete all work as specified in these Documents and Specifications. By my submission of this Bidding Proposal I acknowledge the receipt of the Package containing the following: General Conditions & Requirements, General Instructions to Bidders, Detailed Specifications, Detailed Rooftop Diagrams, and Detailed Specification Drawings. To provide supervision, labor, materials and equipment for roof repairs of the following items, per the attached.

The City of Auburn Hills shall utilize the Omnia Partner Purchasing Contract to secure a portion of the material for this project. The below (Bid Form: Part A) should include all but the direct purchase price of materials identified on Bid Form: Part B.

Club House (Sections A & B)

Base Bid #1: The base bid shall include the removal of the existing asphalt shingles, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of a vapor barrier and new dimensional shingle. Existing gutter and downspout design to be replaced with larger diameter components per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section A & B one hundred twenty nine thousand eight hundred DOLLARS (\$ 129,800⁰⁰)

Club House (Section C)

Base Bid #2: Base Bid #2 shall include the removal of the existing roofing membrane, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of 2-ply modified bitumen roofing system in cold-process adhesive per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section C Seventy five thousand six hundred DOLLARS (\$ 75,600⁰⁰)

Contractor Name Royal Roofing CO, INC

Continue to next page

Club House (Section C)

Alt. #1: Alternate #1 shall include the removal of the existing roofing membrane, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of 2-ply modified bitumen roofing system in Zero-VOC cold-process adhesive per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section C Seventy six thousand four hundred DOLLARS (\$ 76,400⁰⁰)

Cart Barn (Section D)

Add Alt. #1: Add Alternate #1 shall include the removal of the existing asphalt shingles, down to the substrate. Substrate shall be checked for deterioration and/or moisture and replaced per the unit cost identified below. New roof system is to consist of a vapor barrier and new dimensional shingle. Existing gutter and downspout design to be replaced with larger diameter components per specifications. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section D thirty seven thousand eight hundred DOLLARS (\$ 37,800⁰⁰)

Maintenance Building (Section E)

Add Alt. #2: Add Alternate #2 shall include the complete restoration of the existing metal roofing system. The new restoration system includes reinforcement, primer and two layers of restoration coating. This shall include all necessary flashings, copings, pitch pockets, and necessary materials in accordance with the specifications, scope of work, and details provided in the bid documents. Work is to be completed by Dec. 1st, 2024.

All labor, materials, services and equipment necessary for completion of the work shown on the drawings and in the specifications.

Section E Twenty nine thousand seven hundred DOLLARS (\$ 29,700⁰⁰)

*****Note:**

5% Bid Bond (Included with Bid)
100% Performance Bond

Extra work may be necessary other than required by the plans and specifications, extra work will be completed according to the written instructions of the Owner for the following unit prices:

Unit Cost Items: Replacement of wood sheathing – \$14⁰⁰ per sq. ft.

Unit Cost Items: Replacement of drain – 2,200⁰⁰ per unit

Unit Cost Items: Replacement of metal decking – 17⁰⁰ per sq. ft.

Contractor Name Royal Roofing Co., Inc

Continue to next page

Addenda Numbers ① 1-31-24 are hereby acknowledged

Respectfully Submitted,

SIGNATURE:

ELJS

TITLE:

Project Manager

BUSINESS NAME:

Royal Roofing CO INC

CONTRACTOR ADDRESS:

2445 Brown Rd Orion MI
48359

DATE: 2-7-2024

Bid Form: Part B

It is the intent of the City of Auburn Hills ("Agency") to purchase materials for the City of Auburn Hills 2024 Roof Project ("Project") located at 1827 N. Squirrel Rd. Auburn Hills, MI 48326 directly from Garland Inc., based upon the Agency's participation in the Omnia Partners Government Purchasing Alliance's program for Roofing Supplies and Related Products and Services, as priced by and awarded to Garland/DBS, Inc., resulting from the competitively solicited Sealed Bid #PW-1925 issued by the Racine County Board of Commissioners.

As a bidder on the Project, you are required to fill in your order quantities for the following materials as listed below:

Fieldstone Golf Club (Sections A/B)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4131	R-Mer Seal	Roll	200 SF	99
	Flat Stock	24ga. Sheet	4' x 10'	38

Fieldstone Golf Club (Section C)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4376	StressPly Plus Smooth	Roll	100 SF	17
4365	StressPly FR Mineral	Roll	75 SF	12
4411-80	StressBase80	Roll	150 SF	17
7339-5	WeatherKing Membrane Adhesive	5 Gallon	2.5 gal/sq	19
7338-5	WatherKing Flashing Adhesive	5 Gallon	5 gal/sq	12
7411-5	GarlaBrite	5 Gallon	0.75 gal/sq X2	8
4840-6	GarMesh	Roll	150'x6"	5
7342-5	WeatherScreen	5 Gallon	5 gal/sq	15
7612-5	GarlaPrime	5 Gallon	0.5 gal/sq	7
7347	Insu-Lock HR	4 Cart. Case	600 SF	3

Alternate #1

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4376	StressPly Plus Smooth	Roll	100 SF	17
4365	StressPly FR Mineral	Roll	75 SF	12
4411-80	StressBase80	Roll	150 SF	17
7301-5	GreenLock Membrane Adhesive	5 Gallon	2.0 gal/sq	17
7302-3	GreenLock Flashing Adhesive	3.5 Gallon	5 gal/sq	19
7411-5	GarlaBrite	5 Gallon	0.75 gal/sq X2	8
4840-6	GarMesh	Roll	150'x6"	5
7342-5	WeatherScreen	5 Gallon	5 gal/sq	15
7612-5	GarlaPrime	5 Gallon	0.5 gal/sq	7
7347	Insu-Lock HR	4 Cart. Case	600 SF	3

Fieldstone Golf Club (Section D)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
4131	R-Mer Seal	Roll	200 SF	30
	Flat Stock	24ga. Sheet	4' x 10'	10

Fieldstone Golf Club (Section E)

Base Bid

Product #	Product Name	Unit / Size	Coverage Rate	Quantity
21040-G	Cool-Sil HB Gray (Base & Top)	5 Gallon	3.0 Gal/SQ	42
21140-G	Metal Roof Primer	5 Gallon	0.25 Gal/SQ	4
21060-G	Cool-Sil FG – Flashing Grade	2 Gallon	20 Gal/sq	11
6340-6	Uni-Bond ST	6" x 50'	Roll / .25	14

PLEASE NOTE:

1. It is the responsibility of the bidder to obtain any product-related information and pricing from the Garland representative prior to bid submission.
2. The bidder takes full responsibility for the material quantities entered above. Any additional materials required to complete the Project, over and above the quantities submitted by the bidder in this addendum, will be billed to the bidder directly and will not be the responsibility of the Agency.
3. Material quantities will be cross-referenced to an expected Project take-off to verify accuracy. Any bids that have material quantities substantially below or above the anticipated requirements for the Project will be rejected unless a detailed explanation is provided.

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that WE ROYAL ROOFING COMPANY, INC. 2445 Brown Road Orion, MI 48359

(Here insert full name, and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and Travelers Casualty & Surety Company Of America Hartford, CT 06183 a corporation duly organized under the laws of the State of CT as Surety, hereinafter called the Surety, are held and firmly bound unto City of Auburn Hills 1827 N. Squirrel Road Auburn Hills, MI 48326

(Here insert full name, and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of 5.00% Att Bid

For the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

Fieldstone Golf Club - 1984 Taylor Road, Auburn Hills, MI 48326

Remove and Replace Shingle & Flat Roof - Club House

Remove and Replace Shingle Roof - Cart Barn

Install Cool-Sil Roof Coating on Maintenance Barn

(Here insert full name, address and description of project)

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

Signed and sealed this 7th day of February, 2024

Jacki Eddy
(Witness)

Alecia Johnson
(Witness)

ROYAL ROOFING COMPANY, INC.

(Principal)

(Seal)

Travelers Casualty & Surety Company Of America
(Surety)

Michelle B. Graham (Seal)
Michelle B. Graham, ATTORNEY-IN-FACT



Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

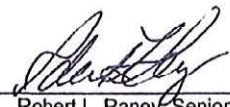
KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Michelle B. Graham** of **ROYAL OAK**, **Michigan**, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, **2021**.



State of Connecticut

City of Hartford ss.

By: 
Robert L. Raney, Senior Vice President

On this the **21st** day of **April**, **2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, **2026**




Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **7th** day of **February**, **2024**




Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.



VENDOR QUESTIONNAIRE

Firm Name: Royal Roofing CO. INC

Address: 2445 Brown Rd

City/State/Zip Code: Orion, MI 48359

Telephone Number: 248-276-7663

E-mail Address: SSucura@Royal-Roofing.com

Years in Business: OVER 37 Years / License number: 210 216 3053

Explain your company's capabilities/knowledge as it relates to commercial roofing applications. Exp. 5-31-2026

See Attached

Provide Three (3) References (names, telephone numbers, and email addresses).

- 1) See Attached

- 2) _____

- 3) _____

Respectfully Submitted By,

Company: Click or tap here to enter text.

Address: Click or tap here to enter text.

Telephone: Click or tap here to enter text.

Fax: Click or tap here to enter text.



Royal Roofing Co., Inc. – Qualifications and Experience

Qualifications:

1. Firm –

- Royal Roofing has been a dedicated commercial roofer in the Metro Detroit area for over 38 years.
- Royal completes over 25,000,000 square feet of roofing in a typical year with a crew of over 200 field employees.
- Our safety rating is strong with an EMR of .77. Royal has a full time, dedicated safety director, Nick Orzel, who manages and monitors all work.

2. Staff -

- Our eight foremen have an average of over 20+ years' experience in the field.
- The ownership team averages over 20+ years' experience in the roofing industry.
- Please see the attached organizational chart for the full range of our team.
- Royal owns virtually all equipment necessary to complete almost all roofing projects.

3. Industry Knowledge –

- Royal has installed virtually every roofing system available in the commercial roofing market including: Built up roofing, Single Ply systems – Rubber, PVC, TPO, SBS, Standing Seam Metal, Slate & Tile, coatings and more.
- Royal has in-house sheet metal fabrication in a 20,000 square foot facility.
- All major manufacturers have certified and qualified Royal Roofing including: Firestone, GAF, Garland, Carlisle, Tremco, John's Manville and others.
- Royal is a regular recipient of Firestone's Circle of Quality award.
- Firestone awarded Royal their Platinum Master Contractor award in 2019 and Master Contractor award for the five+ prior years.

4. Financial Capacity –

- Royal Roofing has been in operation for over 37 years.
- We have a \$9MM Line of Credit with Huntington Bank which has zero outstanding.
- Our bonding capacity is \$60mm in Aggregate with a \$30MM Single limit provided by Travelers; which is one of the premier Surety providers.



www.royal-roofing.com

Royal Roofing Job References- Coatings

City of Novi Fire Station No. 4- 2023

Novi, MI

Brad Konvolinka- 734-770-4343

bkonvolinka@garlandind.com

12,500 square feet

\$87,500

Full Reinforced Liquitex Fluid Membrane by Garland

Kemp-Harsen's Island Beardslee Marina- 2023

Harsen's Island

Ian Hurst- 810-602-1470

ian@kemp-company.com

43,100 square feet

\$369,900

Alumanation 301 by Tremco

Wayne County Community College NW Campus Detroit- 2022

Detroit, MI

Michael Constanti- 313-530-2218

Mconsta1@wcccd.edu

37,000 square feet

\$128,900

S42 Silicone Gaco

Motor City Electric Barns- 2022

Detroit, MI

Michael Cisilino- 313-921-5300

mcisilino@mceco.com

17,200 square feet

\$49,900

Alumanation 301 by Tremco

Gen Oaks Fabricators- 2021

Orion, MI

David Presson- 248-373-1515

genoakfab@aim.com

5,000 square feet

\$18,900

Alumanation 301 by Tremco



www.royal-roofing.com

Royal Roofing Job References-Municipal

City of Flint Oak Business Center- 2023

Flint, MI

Brad Konvolinka (Garland)- 734-770-4343

brad.konvolinka@garlandind.com

21,300 square feet

\$651,200

TO / BUR

Farmington Hills Ice Arena- 2022

Farmington Hills, MI

Michelle Aranowski- 248-871-2431

MAranowski@fhgov.com

5,300 square feet

\$243,541

TO / EPDM

Auburn Hills City Hall- 2021

Auburn Hills, MI

Brad Konvolinka (Garland)- 734-770-4343

brad.konvolinka@garlandind.com

30,000 square feet

\$555,500

TO / EPDM / Shingle

Circuit Court Building & Freedom Hill -2020

Macomb, MI

Earl Srbu (Tremco)- 586-933-7069

esrbu@tremcoinc.com

11,000 square feet

\$650,680

Tear-off / 3-ply BUR

River Raisin National Battlefield Park Education Center- 2020

City of Monroe, MI

Jim Jacobs (James Jacobs Architects)- 734-241-7933

jimj@jsjacobsarch.com

60,200 square feet

\$344,000

Overlay / 60 MIL Durolast



CITY OF AUBURN HILLS

CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 7D

DEPARTMENT OF PUBLIC WORKS

To: Mayor and City Council
From: Thomas A. Tanghe, City Manager; Jason Hefner, Manager of Fleet & Roads
Submitted: February 26, 2024
Subject: Motion – Approve Purchase of Four Replacement Vehicles

INTRODUCTION AND HISTORY

In August 2023, Council approved the purchase of 7 Ford Mavericks with a hybrid electric powertrain. Over the last month, those trucks have been delivered and put into service. At that time, only 3 were purchased for Community Development (of the 4 budgeted in 2023) so that staff could evaluate the vehicles. Currently, staff feels that it is an acceptable fit for these vehicles.

Budgeted within the 2024 Fleet Operating Budgets is the replacement of two vehicles and the addition of one vehicle included within the chart below. Also included is one vehicle that had originally been scheduled for replacement in 2023 but purchase was delayed until the evaluation of the Mavericks could be completed.

Current Vehicle					New Vehicle			Budget Year	Price
Asset ID	Year	Make	Model	Mileage	Year	Make	Model		
AB906	2014	RAM	1500	48,339	2024	Ford	Maverick	2024	\$ 31,921
AB907	2014	RAM	1500	85,469	2024	Ford	Maverick	2024	\$ 31,921
NEW COMMUNITY DEVELOPMENT					2024	Ford	Maverick	2024	\$ 31,921
AB908	2014	RAM	1500	87,442	2024	Ford	Maverick	2023	\$ 31,921
								Total:	\$127,684

These replacements and additions for 2024 are under the budgeted amounts (The 2023 budget year was released at the end of 2023 and will require a budget amendment). While researching electric and electric hybrid vehicles, staff discovered that full-size electric trucks are roughly \$20,000 more expensive than the standard gasoline-powered version. The Ford Maverick is a sub-compact electric hybrid truck that is front wheel drive and is a significant savings when compared to the RAM 1500 (the full-size gasoline-powered truck).

These four trucks for Community Development will be utilized by Building Inspectors and Code Enforcement Officers. The additional vehicle for Community Development is for a Code Enforcement Officer that was an additional position added within the last year. While two of the three vehicles being replaced are over the 80,000-mile projected replacement, AB906 qualifies for replacement as it is 10 years old (the replacement projection for pick-up trucks is 8 years or 80,000 miles) and these three will be sold.

Pricing was originally obtained from LaFontaine Ford of Lansing, MI as staff was told in the early months of 2023 that the dealer was working to become a State of Michigan MiDEAL dealership. It was discovered that LaFontaine Ford was still working through that process when the quotes were acquired in July last year. To fulfill the purchasing ordinance, quotes were obtained from Lunghamer Ford of Owosso, MI at that time, but the quotes under the State of Michigan MiDEAL contract are roughly \$1000 more per vehicle. Therefore, the new Ford Mavericks will be purchased as an extension of the previous purchasing contract from LaFontaine Ford of Lansing, MI at the same

price per truck (the current and past quotes are all included as exhibits 1-3). The total cost for the 4 Ford Mavericks is \$127,684.00. All vehicles include a 3-year/36,000-mile bumper to bumper warranty, a 5-year/60,000-mile powertrain warranty, and an 8-year/100,000-mile hybrid/electric unique component warranty. A budget amendment in the 2024 budget year is recommended for \$31,921.00 for the replacement originally planned for 2023.

STAFF RECOMMENDATION

Staff recommends amending the 2024 fleet vehicle budget (661-594-981.000) in the amount of \$31,921.00. Staff also recommends the approval to purchase the four vehicles listed above for \$127,684.00 from LaFontaine Ford of Lansing, MI. Funding for the purchase is available via account number 661-594-981.000.

MOTION

Move to amend the 2024 fleet vehicle budget and approve the purchase of four Ford Mavericks for \$127,684.00 from LaFontaine Ford of Lansing, MI.

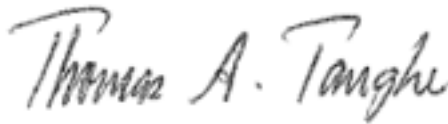
EXHIBITS

Exhibit 1 – Current Lafontaine Ford Vehicle Quote

Exhibit 2 – July 2023 LaFontaine Ford Vehicle Quotes

Exhibit 3 – July 2023 Lunghamer Ford Vehicle Quotes

I CONCUR:



THOMAS A. TANGHE, CITY MANAGER

LaFontaine Ford Lansing
5103 S. Cedar St
Lansing, MI 48911
517-574-7120-Direct

QUOTATION

dwresinski@lafontaine.com

Name: City of Auburn Hills

Address: _____

City: _____ State: _____ Zip: _____

Contact: Jason Hefner

Phone: 248-364-6931

Email: jhefner@auburnhills.org

Date: 2/26/2004

Quote: 022624

2024 Ford Maverick XLT FWD 121" Wheelbase	
2.5L Hybrid Engine	
Auto CV Transmission	
Iconic Silver Metallic Exterior	
Blue Cloth Interior	
Floor Liners w/ Carpeted Mats	
Tonneau Cover Hard Tri-Fold	
XLT Luxury Package	
Tailgate Lock	
Trailer Hitch Receiver	
Power 8-Way Driver Seat	
Drop-in Bedliner	
MSRP Sales Price	\$33,080.00
Sales Price	\$31,906.00
Taxes	\$0.00
Title and Fees	\$15.00
Delivery	\$0.00
Cost per Vehicle	\$31,921.00
Number of Vehicles	x4
Total Cost:	\$127,684.00

Signed: Daniel Wresinski

LaFontaine Ford Lansing
5103 S. Cedar St
Lansing, MI 48911
517-574-7120-Direct

QUOTATION

dwresinski@lafontaine.com

Name: City of Auburn Hills
Address: _____
City: _____ State: _____ Zip: _____
Contact: Jason Hefner
Phone: 248-364-6931
Email: jhefner@auburnhills.org

Date: 7/25/2023
Quote: 072523

2024 Ford Maverick XLT FWD 121" Wheelbase	
2.5L Hybrid Engine	
Auto CV Transmission	
Iconic Silver Metallic Exterior	
Blue Cloth Interior	
Floor Liners w/ Carpeted Mats	
Tonneau Cover Hard Tri-Fold	
XLT Luxury Package	
Tailgate Lock	
Trailer Hitch Receiver	
Power 8-Way Driver Seat	
Drop-in Bedliner	
MSRP Sales Price	\$33,080.00
Sales Price	\$31,906.00
Taxes	\$0.00
Title and Fees	\$15.00
Delivery	\$0.00
Cost per Vehicle	\$31,921.00
Number of Vehicles	x3
Total Cost:	\$95,763.00

Signed: Daniel Wresinski



August 1, 2023

City of Auburn Hills
Attn: Jason Hefner
1500 Brown Road
Auburn Hills, MI 48326

Dear Jason Hefner:

Price on 2024 Vehicle State of Michigan Contract# 071B7700180 and Macomb County Contract# 21-18 Bid:

(3) 2024 Ford Maverick Super Crew AWD XLT Pickup in Red	\$33,409.00 ea
(3) 2024 Ford Maverick Super Crew AWD XLT Pickup in Silver	\$32,914.00 ea
(1) 2024 Ford Maverick Super Crew AWD XLT Pickup in White	\$32,914.00 ea
Total Delivered Price	\$231,883.00

Standard Service Contract: 36,000 miles or 36 months factory Bumper to Bumper Warranty and 60,000miles 60 months Powertrain Warranty . Service to be handled by your local Ford Dealer.

Order Cutoff Date: TBD.

Ford Motor Company does not guarantee delivery---Ford Motor Company will make reasonable efforts to schedule orders received prior to fleet order cut-off date.

Payment requirements: All departments to pay on delivery of vehicle. 10-day grace period will be given if previous arrangements have been made. A \$9.50 per day floor plan will be charged if payment is not at the dealership within 10 days of delivery of the vehicle (s).

If you have any questions please call me, 888-92-FLEET (923-5338)

Respectfully Submitted,

Bill Campbell

Bill Campbell
Government & Fleet Sales

1960 E Main St Owosso, MI 48867, 888-92-FLEET (888.923.5338) Fax 517-625-5832

2024 Maverick Super Crew XL Major Standard Equipment

MECHANICAL

- 2.0L EcoBoost w/ 8-Speed Automatic Transmission
- 4-Wheel Disc Anti-Lock Brake System (ABS)
- Electric Parking Brake
- Electronic Power-Assist Steering (EPAS)
- Post Impact Braking
- Rotary Gear Shift Dial Includes Select Drive Modes: Normal, Eco, Sport, Slippery and Tow/Haul
- Variable-Assist Power Steering

EXTERIOR

- Black Mesh Grille w/Black Surround
- Box Top and Tailgate Moldings
- Cargo Lamp – Integrated with Center High-mounted Stop Lamp (CHMSL)
- Easy Fuel® Capless Fuel-Filler
- FLEXBED® Storage System
- Fuel Tank
- 16.5 Gallon – Gas
- Handles, Black – Door and Tailgate
- Hooks – Cargo Tie-Downs, six (6)
- Mirrors, Sideview – Manual-folding, Manual Glass with MIC Black Skull Caps
- Maverick® XL Fender Badge
- Rocker Molding
- Spare Tire Carrier – Rear Under Frame
- Spare Tire (Mini)
- Bumper, Front & Rear – Steel
- Trailer Sway Control
- Tailgate – Manual Locking
- Tires – P225/65R 17" A/S BSW
- Wheels – 17" Sparkle Silver Steel
- Windshield Wipers – Intermittent Speed

INTERIOR/COMFORT

- 4.2" Productivity Screen in Instrument Cluster
- Cruise Control
- Dual Vanity Mirrors
- Floor Covering – Carpet ● Floor Mats – Front Carpet
- Front Door Stowage Bins
- Front Map Lights/Overhead Console
- Front/Rear Cargo Compartment Dome Lamps (Fade-to-off)
- Instrumentation (Door Ajar, Lamps On, Low Fuel & Washer Fluid, Tach, Clock)
- Front/Rear Grab Handles (3) Three
- Manual Air Conditioning, Single Zone
- Power Door Unlock and Lock
- Powerpoint 12V – Front (1), Rear (1)
- Rear Coat Hooks
- Rear Under Seat Storage Bins
- Rear-Window with Fixed Privacy Glass
- Seat, Front — 6-Way Manual Adjustable Driver
- 4-Way Manual Adjustable Passenger
- Bucket Seats

- Cloth Trim
- Front Floor Console w/ Armrest & Storage Bin
- Seat Back Map Pocket, Passenger
- Seat, Rear
- Full Bench Rear Cloth Folding Seatback
- Flip-Up Seat Cushion
- Steering Wheel, Black Urethane – Manual Tilt/Telescoping and Manual Locking w/ Audio Controls
- Vinyl Console Lid
- Windows
- Power Front/Rear Windows
- 1-Touch Down Driver Window
- Rear Privacy Glass

SAFETY/SECURITY

- Anti-Theft Engine Immobilizer
- Airbags
- Driver and Passenger Front Airbags
- Safety Canopy® Side-Curtain Airbags
- Driver and Passenger Side Airbags
- Driver Knee Airbag
- Autolamp – Auto On/Off LED Headlamps
- Center Rear Seat Shoulder Belt
- Driver & Passenger Height Adjustable Retractable Seatbelts
- Belt-Minder® (Front Safety Belt Reminder)
- Configurable Daytime Running Lamps (DRL)
- LATCH (Lower Anchors and Tether Anchors for Children)
- Power Central Locking
- SecuriLock® Passive Anti-Theft System
- Smart Occupant Sensing airbags
- Tire Pressure Monitoring System (TPMS)

FORD CO-PILOT360™ TECHNOLOGY

- Auto LED High-Beam
- Pre-Collision Assist with Automatic Emergency Braking (AEB) (Pedestrian Detection, Forward Collision Warning, Dynamic Brake Support)
- Rear View Camera

FUNCTIONAL

- 2 USB Ports (Front) – 1 Type A & 1 Type C
- 8" Center Stack Screen w/ Standard Bluetooth® Connectivity
- Apple CarPlay™ and Android Auto™
- AM/FM Stereo w/ 6 Speakers
- Battery Saver
- Electronic Stability Control
- Extended Service Interval Monitor
- FordPass Connect™ (4G)
- Schedule specific times to remotely start vehicle
- Locate parked vehicle
- Check vehicle).
- Keyed Ignition
- Particulate Air Filter
- Remote Keyless Entry / Panic Button (Key Fob)

XLT 300A Super Crew 121" WB 5 Ft. Box

[x] Base Price W8H, FWD (2.5L 4 cyl Hybrid Engine w/Automatic CVT Transmission) 993/445	\$28,484.00
[] Base Price W8J, AWD (2.5L 4 cyl Hybrid Engine w/Automatic CVT Transmission) 993/445	\$30,443.00

XLT Contains All XL Standard Features Plus:

EXTERIOR

- 17" Painted Aluminum Wheels
- Cubby Storage in Bed (Passenger Side)
- Cargo Tie Downs, plus four (+4)
- Gray Grille Bar • Maverick® XLT Fender Badge
- Mirrors, Sideview – Manual-folding, Power Glass w/ Spotter
- Power Tailgate Lock

- Wiper Activated LED Headlamps

INTERIOR/COMFORT

- Seats, Rear
- Cupholders
- Armrest
- Unique Cloth Bucket Seats

SAFETY/SECURITY

- Perimeter Alarm

Available Options

	<u>Option Code</u>	<u>Price</u>
[] 4K Tow Package	53Q	745.00
<ul style="list-style-type: none"> • 225/65R17 A/S BSW Tires • Trailer Brake Controller • Trailer Hitch Receiver w. 7-pin Connector • Transmission Oil Cooler • Higher Capacity Radiator • Upgraded Cooling Fan • Upgraded Drive Ratio (AWD) 		
[] Ford Co-Pilot360	86B/55D	805.00
<ul style="list-style-type: none"> • BLIS® (Blind Spot Information System) w/Cross-Traffic Alert • Lane-Keeping System (Lane-Keeping Aid, Lane-Keeping Alert and Driver Alert System) 		
[x] XLT Luxury Package	54L	2275.00
<ul style="list-style-type: none"> • 8-Way Power Driver and 6-way Manual Passenger Seats • 400W Inverter (Cab + Bed Incl Cubby Cover) w/USB Console Rear • Full-Size Spare • Heated Mirror w/ Painted Black Skull Caps • Heated Seats • Soft Vinyl Wrapped Heated Steering Wheel • LED Box Lighting • Remote Start System • Trailer Hitch Receiver w/ 4-Pin Connector • Bedliner – Modular Hard Drop-in 		
[x] Trailer Hitch Receiver w/4-Pin Connector	60B	100.00
[] Bed Extender	50B	370.00
[x] Drop-In Bedliner	96J	375.00
[] Spray-In Bedliner	96G	495.00
[] Engine Block Heater	41H	90.00
[x] Floor Liners Front and Rear (with Carpet Mats)	16B	175.00
[] Front License Plate Holder	153	N/C
[] Full Size Spare Tire	51D	115.00
[] Splash Guards/Molded Front and Rear	63B	180.00
[] Rear Parking Sensors	76B	260.00
[] Daytime Running Lamps	942	45.00
[x] Power 8-Way Drivers Seat	90K	285.00
[] Tonneau Pickup Box Cover – Soft Folding	21D	590.00
[x] Tonneau Pickup Box Cover – Hard Trifold	21K	1180.00
[] Tonneau Pickup Box Cover – Hard Rollup	21L	1200.00
[x] Tailgate Lock	DIO	40.00

(1) Oxford White and (3) Iconic Silver

Total Price \$32,914.00 ea

(3) Hot Pepper Red Metallic

Total Price \$33,409.00 ea

XLT Colors & Trim Availability:

<u>Exterior</u>	<u>Interior</u>	
	<u>(Navy Pier) (7B)</u>	
Shadow Black	(G1)	[]
(1) Oxford White	(YZ)	[x]
(3) Iconic Silver	(JS)	[x]
Carbonized Grey	(M7)	[]
Atlas Blue	(B3)	[]
Cactus Grey	(NE)	[]
Terrain	(VA)	[]

Extra Cost Paint (Add \$495.00)

(3) Hot Pepper Red Metallic Clearcoat	(EA)	[x]
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CITY OF AUBURN HILLS

CITY COUNCIL AGENDA

MEETING DATE: MARCH 4, 2024

AGENDA ITEM NO 9A

CITY CLERK'S OFFICE

To: Mayor and City Council
From: Thomas A. Tanghe, City Manager; Laura M. Pierce, City Clerk
Submitted: February 28, 2024
Subject: Motion – To consider the 2024 Liquor License Renewals

INTRODUCTION AND HISTORY

Every year, City Council reviews the On-Premises Liquor Licenses within the City for renewal. Per State law and local ordinance, the only liquor licenses that need to be renewed by City Council and the MLCC are those businesses that serve alcohol for consumption on premises. The City expanded the license requirement in 2022 to include the establishments that serve alcohol for consumption on premises holding a manufacturer and on-premise retailer license. If the City wishes to object to the renewal of a license, the Michigan Liquor Control Commission (MLCC) must receive the written objection prior to the license expiration date of March 30, 2024. Upon receipt of an objection from the City, the MLCC may hold an Administrative Revocation Hearing to determine if the license should be renewed or not.

To ensure the close monitoring of LCC licenses, City Council has enacted Chapter 6 of the Code of Ordinances, "...to regulate and establish procedures and standards for liquor licensing in the City of Auburn Hills." Pursuant to this ordinance, license holders pay a renewal fee to the City and are inspected by the Police, Fire, and Building Departments. City Council may object to the renewal of the liquor license if certain standards are not met as listed in the City Code:

- Section 6-10 (1) Compliance with all standards, plans and conditions established and approved at the time of the issuance of the license or at a time of later city approval.
- Section 6-10 (2) All personal property taxes and all real property taxes and all other obligations due and payable to the City shall be timely paid and not outstanding.
- Section 6-11 (1) Failure to comply with any of the standards, conditions, requirements, plans or agreements entered into in consideration for the issuance of the license.
- Section 6-11 (4) Violations of state law or city ordinances.

CITY INSPECTIONS

The Building Department and Fire Department found several minor violations at various establishments and is working with the businesses to correct the issues. The Police Department checks its computer records for the number of calls for service at each establishment and the nature of the requests. The Police Department determined that no establishments had substantial problems with the frequency or nature of calls for service.

LIQUOR LICENSE VIOLATIONS – 3 YEAR HISTORY

The Police Department provides a list of establishments that have received violations within the past three years.

ESTABLISHMENT	TYPE OF VIOLATION	DATE OF VIOLATION
Crowne Plaza	Sale to Minor	7/27/22
Hoops Sports & Spirits	Sale to Minor	7/27/22
Hyatt Place Hotels	Sale to Minor	7/27/22
Sonesta Select	Sale to Minor	7/26/22

The Olive Garden	Sale to Minor	7/26/22
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UNPAID LICENSE FEE, TAXES OR UTILITIES

Below is a list of establishments with outstanding taxes, utilities, or license renewal fees, including penalties. The information contained in this memo is current as of February 28, 2024.

ESTABLISHMENT	WATER/SEWER DUE	TAXES DUE	APPLICATION FEE	TOTAL BALANCE DUE
Got Wings	-	\$618.34 (personal property taxes)	\$250.00	\$868.34
Hub Stadium	\$11,071.65	\$1,224.50 (property taxes)	-	\$12,296.15

Staff has been in contact with each establishment and has informed them of their balance owed to the City and the impact it could have on their liquor license.

- Got Wings – They are converting to a sports bar and the establishment is currently under construction. A letter was sent on February 8th but was returned to the City as undeliverable. A follow up email was sent on February 21st and 28th notifying them of their outstanding balance.
- Hub Stadium – They have spoken with DPW to enter into a payment plan for their outstanding water and sewer, however the taxes are still outstanding.

LICENSES IN ESCROW

According to the Michigan Liquor Control Commission website, there are three Class C On-Premise licenses in escrow.

LICENSEE IN ESCROW	ADDRESS
Dimitri's Opa Restaurant	3315 Auburn Rd
Taub-Co License LLC	4248 Baldwin Rd
Auburn Hills TIFA	3329 Auburn Rd

ELIGIBLE FOR RENEWAL

The following establishments have met all requirements for license renewal in accordance with Police, Fire and Building Department inspections and have paid the annual license renewal fee, taxes, and utilities:

A+ King Crab (Joe's Crab Shack)	Fieldstone Golf Club	On the Border
Alfoccino's Restaurant	German American Club	Rainforest Café
AMC Great Lakes 25	Hoops Food, Sports & Spirits	Rangoli Indian Cuisine
American Legion Post #143	Hyatt Place Hotel	Red Ox Tavern
Applebee's	Lelli's Inn	Round One Entertainment
Bar Louie	Longhorn Steakhouse	The Olive Garden
Blue Skies Brewing, LLC	M&D Downtown Auburn Hills (Duffy's)	Top Golf
Buddy's Pizza	Michigan By the Bottle	Twin Peaks Restaurant
Chili's Grill & Bar	Miyako	
Crowne Plaza	Nino's Italian House	
Embassy Suites	O'Brien's Crabhouse	

STAFF RECOMMENDATION

Staff recommends renewal of all liquor licenses for those establishments listed above that have met the City's requirements.

Staff recommends a Public Hearing be held to consider non-renewal of the liquor license for the establishments that owe fees to the City and are in violation of the City ordinances:

The Hub Stadium	Section 6-10 (2)	Outstanding fees owed to the City
Got Wings	Section 6-10 (2)	Outstanding fees owed to the City

MOTION #1

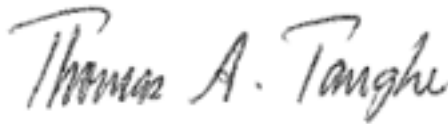
Move to recommend approval of the annual liquor licenses of those establishments that have met the licensing requirements of the City and are eligible for renewal as stated above.

AND

MOTION #2

Move to set a public hearing for Monday, March 18, 2024 to consider evidence regarding the recommendation of non-renewal of a liquor license for The Hub Stadium and Got Wings who have not met the City's requirements as stated in Sections 6-10 of the City Code.

I CONCUR:



THOMAS A. TANGHE, CITY MANAGER

From: [Comcast Heartland](#)
Cc: [Woody, Eric](#)
Subject: (EXTERNAL)Comcast Programming Advisory
Date: Thursday, February 29, 2024 11:26:57 AM

You don't often get email from comcast_heartland@comcast.com. [Learn why this is important](#)

Good morning,

As part of our ongoing commitment to keep you and customers informed about changes to Xfinity TV services, I wanted to provide you with an update regarding changes to the channel line-up in your community.

- Beginning May 7, 2024, Pursuit Channel HD will be made available on channel 1238. HD programming and an X1 TV Box or Xfinity Internet and a compatible customer owned device is required to view this channel.

Please feel free to contact me at 248-924-4917 if you have any questions.

Sincerely,

Eric Woody
Manager, External Affairs
Comcast, Heartland Region
41112 Concept Dr.
Plymouth, MI 48170

Former Palace of Auburn Hills site destined for redevelopment



Map showing the former Palace of Auburn Hills site. Courtesy, City of Auburn Hills

By **PEG MCNICHOL** | pmcnichol@medianewsgroup.com

PUBLISHED: February 16, 2024 at 6:50 a.m. | UPDATED: February 16, 2024 at 8:03 a.m.

The site where the Palace of Auburn Hills arena once stood will be reinvented over the next 18 months, according to plans submitted to Auburn Hills' community development office. Just over a mile away, another manufacturing facility is being planned at the former Silver Bell Ski Lodge site.

The city received drawings for building permit review of the former Palace site earlier this month, said Steve Cohen, Auburn Hills' director of community development, adding that the city has been working closely with the developer.

Schostak Development Inc.'s plan for the Palace site shows \$70 million in site preparation and \$130 million for building construction that will result in a long-term lease between Schostak and General Motors. GM would manufacture a variety of automotive parts that should be sent to GM's Orion Assembly Plant, north of Brown Road at 4555 Giddings Road in Orion Township.

The Palace opened in 1988 and was the Detroit Pistons' home and a sports and concert venue until Bob Seger's final concert there in 2017. The arena was demolished, and site cleared in 2020.

Tara Kuhnen, GM's director of corporate news relations and broadcast for real estate and human resources, said the company will "secure space for a supplier facility to support its Orion Assembly Plant, which will be expanded to produce electric pickup trucks. We will have more to share later in the year."

Jeffrey Schostak, president of Schostak Development, said he would have more to say about the project in 30 to 60 days.

"We are working collaboratively to help keep the development on track to meet critical benchmarks," Cohen said.

Construction is scheduled to start in early May though weather and other factors could cause a date shift, Cohen said.

"The site will be prepared for development with grading, major utility installation, and building foundations poured between May and August," Cohen said. "Structural steel for the building is expected to be erected at the pad site just after Labor Day, with the building fully enclosed by March 2025."

Cohen anticipates the facility to be fully operational by early November 2025, based on the current plan.



Proposed building at the former Palace of Auburn Hills site. Courtesy, City of Auburn Hills

Meanwhile, city officials are waiting on a development application for a nearby site. Warren-based Crown Enterprises purchased 79.24 acres at 4250 Interpark Drive, Cohen said.

Crown Enterprises, which is owned by the Maroun family, specializes in building and leasing turnkey properties for big corporations. The family also owns businesses related to trucking, transportation, insurance, logistics, management, and the Ambassador Bridge over the Detroit River, which connects Detroit and Windsor.

The Interpark Drive site was transformed from the Silver Bell Ski Lodge in the early 1960s into a landfill in the 1970s and an industrial park in the early 2000s. Cohen said it became a “zombie site” during the Great Recession, between 2007 and 2009.

“City staff anticipate meeting with the company in the weeks ahead to learn more about their proposal for the land,” Cohen said.

Missing mother, newborn located at Warren laundromat



Amanda Rose Prowell-Smith (image shared by Auburn Hills Police Dept.)

By **AILEEN WINGBLAD** | awingblad@medianewsgroup.com | The Oakland Press
PUBLISHED: February 19, 2024 at 1:06 p.m. | UPDATED: February 19, 2024 at 3:57 p.m.

Nearly two weeks after family members reported a newborn and her mother missing, they were located at a Warren laundromat and the mother was arrested.

Responding to a tip Warren police found the mother, Amanda Rose Prowell-Smith, 32, and her baby, Eliza, at the laundromat on Feb. 17.

The two were reported missing from Auburn Hills on Feb. 5, and family members told police Prowell-Smith couldn't properly care for her baby — six weeks old at the time — because she had a long history of mental illness. Police then issued a missing endangered advisory.

"This was an outstanding example of teamwork between the public and the police," Auburn Hills Deputy Police Chief Scott McGraw stated in a news release issued Feb. 19. "I am incredibly proud of all the officers and detectives who worked on this case and their relentless search for Amanda and Eliza. I could not have asked for a better outcome to this search. Thank you to everyone who assisted."

Three days before she was reported missing, Prowell-Smith allegedly assaulted a family member and left home on South Boulevard in Auburn Hills with the baby, and the family hadn't seen them since.



Police said the infant and her mother had been missing since Feb. 2. (Photo shared by Auburn Hills Police Dept.)

Prowell-Smith was taken into custody on outstanding warrants and the baby was turned over to Children's Protective Services Protective Services. She was evaluated at a hospital and had no injuries, police said.

Earlier, police learned from Children's Protective Services that Prowell-Smith has two other children that had been removed from care due to their mother's mental state. It had been determined that Prowell-Smith is incapable of caring for herself or her child, police said.