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& TRADE SHOW  
APRIL 18-20  
**2017**  
RESTON, VA  
AIR BARRIER EDUCATION TRACKS FOR  
THE CONSTRUCTION INDUSTRY

# Avoiding Poor Air Barrier Audits

Robert F. Mimmo

*Gale Associates, Inc.*



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# Avoiding Poor Air Barrier Audits

- Review the Quality Assurance Program (QAP)
- Review the ABAA Field Audit Process

# Quality Assurance Program (QAP)

What is the  
QAP?

What is an ABAA  
Audit?

Who Benefits  
from QAP?

Why are ABAA  
Audits  
Necessary?

# What is the QAP

Developed by  
building  
professionals

Increase the level of  
installed quality air  
barrier systems

Greater assurance  
to the building  
owner and design  
professional

Prequalification of  
contractors and  
installers

# Who Benefits from the QAP?

**Contractors/  
Subcontractors**

**Building Owners**

**Manufacturers**

**Facilities/Utilities**

**Architects/Engineers/  
Consultants**

# What is an ABAA Audit

Independent 3<sup>rd</sup> Party Consultant

Field Check of Installer's QAP

Monitors Compliance to the  
Specifications



# Why Are ABAA Audits Necessary

Maintain same standards  
and requirements for all  
involved

Installer compliance

Value to the building  
owner


Basic principles of air  
barriers

Project specifications

# Project Specifications

ABAA MASTER SPECIFICATION	OCTOBER 2013 PROJECT
	
SECTION 072723	
BOARDSTOCK AIR BARRIER	
RIGID CELLULAR THERMAL INSULATION BOARD	
PART 1 - GENERAL	
1.1 SECTION INCLUDES	
A. This section includes the following:	
1. Boardstock air barrier - rigid cellular thermal insulation board located in the non-accessible part of the wall.	
2. Materials to bridge and seal the following air leakage pathways and gaps:	
a. Connections of the walls to the roof air barrier.	
b. Connections of the walls to the foundation air barrier.	
c. Seismic and expansion joints.	
d. Openings and penetrations of window frames, storefront, curtain wall.	
e. Barrier precast concrete and other envelope systems.	
f. Door frames.	
g. Piping, conduit, duct and similar penetrations.	
h. Masonry ties, screws, bolts and similar penetrations.	
i. All other air leakage pathways in the building envelope.	
SPEC NOTE - COORDINATE RELATED WORK REQUIREMENTS WITH CONTENTS OF REFERENCED SPECIFICATION SECTIONS.	
B. Related Work in other Sections includes the following:	
1. Section 061100 - Wood Framing: load-bearing, wood exterior wall framing assemblies to support the boardstock air barrier.	
2. Section 014000 - Quality Requirements: coordination with Owner's independent testing and inspection agency.	
BOARDSTOCK AIR BARRIER RIGID CELLULAR THERMAL INSULATION BOARD 072723 Page 1 of 16 Date of Issue: 11/05/2013 D-113-001 Rev 13-1 ABAA Closed Cell, Medium Density Spray Polyurethane Foam Air Barrier - Rigid Cellular Thermal Insulation Board	

ABAA MASTER SPECIFICATION	NOVEMBER 2014 PROJECT
	
SECTION 072726	
FLUID-APPLIED MEMBRANE AIR BARRIER	
PART 1 - GENERAL	
1.1 SECTION INCLUDES	
A. This section includes the following:	
1. Fluid-applied membrane air barrier	
2. Materials to bridge and seal the following air leakage pathways and gaps:	
a. Connections of the walls to the roof air barrier.	
b. Connections of the walls to the foundation air barrier.	
c. Seismic and expansion joints.	
d. Openings and penetrations of window frames, storefront, curtain wall.	
e. Barrier precast concrete and other envelope systems.	
f. Door frames.	
g. Piping, conduit, duct and similar penetrations.	
h. Masonry ties, screws, bolts and similar penetrations.	
i. All other air leakage pathways in the building envelope.	
SPEC NOTE - COORDINATE RELATED WORK REQUIREMENTS WITH CONTENTS OF REFERENCED SPECIFICATION SECTIONS.	
B. Related Work in other Sections includes the following:	
1. Section 014000 - Quality Requirements: coordination with Owner's independent testing and inspection agency.	
2. Section 014339 - Mock-Up: exterior wall mock-up.	
3. Section 015000 - Temporary Facilities and Controls: requirement to schedule work to prevent sunlight and weather exposure of materials beyond limits.	
4. Section 015000 - Temporary Facilities and Controls: requirement to schedule work to prevent sunlight and weather exposure of materials beyond limits.	
FLUID-APPLIED MEMBRANE AIR BARRIER 072726 Page 1 of 16 Date of Issue: 11/05/2014 D-113-004 Rev 14-1 ABAA Closed Cell, Medium Density Spray Polyurethane Foam Air Barrier	

ABAA MASTER SPECIFICATION	JANUARY 2014 PROJECT
	
SECTION 072703	
CLOSED CELL, MEDIUM DENSITY SPRAY POLYURETHANE FOAM AIR BARRIER	
PART 1 - GENERAL	
1.1 SECTION INCLUDES	
A. This section includes the following:	
1. Closed cell, medium density spray polyurethane foam air barrier located in the non-accessible part of the wall.	
2. Materials to bridge and seal the following air leakage pathways and gaps:	
a. Connections of the walls to the roof air barrier.	
b. Connections of the walls to the foundation air barrier.	
c. Seismic and expansion joints.	
d. Openings and penetrations of window frames, storefront, curtain wall.	
e. Barrier precast concrete and other envelope systems.	
f. Door frames.	
g. Piping, conduit, duct and similar penetrations.	
h. Masonry ties, screws, bolts and similar penetrations.	
i. All other air leakage pathways in the building envelope.	
SPEC NOTE - COORDINATE RELATED WORK REQUIREMENTS WITH CONTENTS OF REFERENCED SPECIFICATION SECTIONS.	
B. Related Work in other Sections includes the following:	
1. Section 061100 - Wood Framing: Load-bearing, wood exterior wall framing assemblies to support the spray polyurethane foam air barrier.	
2. Section 014000 - Quality Requirements: coordination with Owner's independent testing and inspection agency.	
3. Section 014339 - Mock-Up: exterior wall mock-up.	
4. Section 015000 - Temporary Facilities and Controls: requirement to schedule work to prevent sunlight and weather exposure of materials beyond limits.	
CLOSED CELL, MEDIUM DENSITY SPRAY POLYURETHANE FOAM AIR BARRIER 072703 Page 1 of 25 Date of Issue: 09/01/2013 D-111-006 Rev 13-1 ABAA Closed Cell, Medium Density Spray Polyurethane Foam Air Barrier	

ABAA MASTER SPECIFICATION	MAY 2013 PROJECT
	
SECTION 072708	
MECHANICALLY ATTACHED FLEXIBLE SHEET AIR BARRIERS (BUILDING WRAPS)	
PART 1 - GENERAL	
1.1 SECTION INCLUDES	
A. This section includes the following:	
1. Mechanically attached flexible sheet air barrier (building wraps) located in the non-accessible part of the wall.	
2. Materials to bridge and seal the following air leakage pathways and gaps:	
a. Connections of the walls to the roof air barrier.	
b. Connections of the walls to the foundation air barrier.	
c. Seismic and expansion joints.	
d. Openings and penetrations of window frames, storefront, curtain wall.	
e. Barrier precast concrete and other envelope systems.	
f. Door frames.	
g. Piping, conduit, duct and similar penetrations.	
h. Masonry ties, screws, bolts and similar penetrations.	
i. All other air leakage pathways in the building envelope.	
SPEC NOTE - COORDINATE RELATED WORK REQUIREMENTS WITH CONTENTS OF REFERENCED SPECIFICATION SECTIONS.	
B. Related Work in other Sections includes the following:	
1. Section 014000 - Quality Requirements: coordination with Owner's independent testing and inspection agency.	
2. Section 014339 - Mock-Up: exterior wall mock-up.	
3. Section 015000 - Temporary Facilities and Controls: requirement to schedule work to prevent sunlight and weather exposure of materials beyond limits.	
MECHANICALLY ATTACHED FLEXIBLE SHEET AIR BARRIERS 072708 Page 1 of 16 Date of Issue: 07/02/13 D-115-008 Rev 13-1 ABAA Mechanically Attached Flexible Sheet Air Barriers	

# Project Specifications

## 1.8 QUALITY ASSURANCE

- A. Applicator Qualifications: A firm experienced in applying air barrier materials similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance. Submit qualifications of firm including name, qualifications of supervisor for this project, and location of three projects where similar work was performed by both firm and supervisor. Installer for air and vapor barrier membranes shall be Air Barrier Association of America (ABAA) certified.

# Installer Compliance

		YES	NO	N/A	POINTS	
					Installer	Contractor
<b>Section 2 - Audit Preparation</b>						
<b>Certified Installer(s):</b>						
	On-site at time of audit?	X				
	Applying air barrier?	X				
<b>Registered Installer(s):</b>						
	On-site at time of audit?	X				
	Applying air barrier?	X				
Are the installer(s) certified by ABAA to install self-adhered air barrier materials? <small>(see back of installers card for certification(s))</small>		X				
Are daily job site reports on site and in installers possession?		X				
Are daily job site reports complete and accurate?			X		5	
Do <u>all</u> installers have ABAA photo identification card(s) on site and in installers possession?		X				
Are <u>all</u> installer photo identification card(s) current?		X				
What is the primary air barrier material on this project? 705FR-A						
Are the air barrier accessories <small>(ie: transition materials, mastic, primer)</small> used listed by the manufacturer in their master specification?		X				
If no, have they been approved by the manufacturer in writing?				X		
What is the percentage of ABAA QAP-specified air barrier assembly installed at time of audit? 70%						
What is the percentage of ABAA QAP-specified <u>installed</u> air barrier assembly available for visual inspection? 75 % of installed material						
<b>Section 2 - Audit Preparation Observations and Mandatory Corrections</b>						
<b>Observations:</b>						
Daily Job Site Reports (DJSR) dating back to 1/14/2017 are on site for review. Based on the reviewed DJSR, adhesion tests have not been performed since approximately January 16, 2017. The Installer's test apparatus was not on site since January 16th.						
<b>Corrections:</b>						
Adhesion tests need to be performed each day that AVB membrane is installed. The Installer should fall back to perform adhesion testing on membrane that had remained exposed since January 16th.						

# Basic Principles of Air Barriers

Continuous

Durable and maintainable

Withstand positive/  
negative wind, fan, and  
stack pressures

Air permeability – 0.004  
cfm/sf under pressure  
differential of 0.3 under  
water

Transfer load to the  
structure

Accommodate movement  
in the structure

# Construction Sequencing

- Coordination of sub-trades
- Impacts on final product



# Construction Sequencing

- Roof – Installed?
- Tight seal to the wall?
- No roof?



# ABAA Field Audits



# ABAA Field Audits

- Fluid applied
- Self adhering
- Board stock
- Spray-polyurethane Foam (SPF)

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ABAA Assigned Audit Report #:	
Scheduled Project Audit X of X:	
Audit Date and Time:	
Project Name:	
Project Address:	
Auditor Name:	
ABAA Auditor Certification #:	
Phone #:	
Alternate Phone #:	
Accredited Contractor:	
Primary Contact:	
ABAA Contractor Member #:	
Phone #:	
E-mail Address:	
Certified Installer:	
ABAA Certification #:	
Expiry Date:	
Certified Installer:	
ABAA Certification #:	
Expiry Date:	
Registered Installer:	
ABAA Registration #:	
Expiry Date:	
Registered Installer:	
ABAA Registration #:	
Expiry Date:	
General Contractor:	
Primary Contact:	
Address:	
Office Phone #:	
Site Phone #:	
E-mail Address:	
Design Professional:	
Primary Contact:	
Address:	
Phone #:	
E-mail Address:	
Project Description:	
Manufacturer Name & Trade Name of Primary Air Barrier Material:	
<small>* If a fluid-applied (F.A.) or self-adhered (S.A.) air barrier assembly is being installed under the spray polyurethane foam (SPF), a separate F.A. or S.A. audit report shall also be filled out and submitted to ABAA.</small>	

# ABAA Field Audits

- Air barrier assembly
- Audit preparation
- Substrate conditions
- Visual inspection
- Physical testing
- Foam thickness (SPF)
- SPF equipment / material application (SPF)
- *Safety*
- *Waste disposal (SPF)*
- Installer awareness

# Air Barrier Assembly



			YES	NO	N/A	POINTS	
						Installer	Contractor
<b>Section 1- Air Barrier Assembly Materials</b>							
<b>Fluid-Applied Air Barrier Material:</b>							
Manufacturer name:							
Primary air barrier material trade name:							
Lot/batch number:							
Is the material being installed one of the materials in the project specifications or has it been approved by the specifier?							
Are manufacturers installation instructions on site and in installers possession?							
Installed material expiry date within limits?							
MSDS sheets on-site and in installers possession?							
<b>Transition Material:</b>							
Manufacturer name:							
Transition material trade name & type (FA or SA):							
Transition material lot/batch number:							
Primer manufacturer:							
Primer trade name:							
Primer lot/batch number:							
Are manufacturers installation instructions on site and in installers possession?							
Installed material expiry date within limits?							
MSDS sheets on-site and in installers possession?							
<b>Mastic/Sealant:</b>							
Manufacturer:							
Mastic/sealant name:							
Lot/batch number:							
Are manufacturers installation instructions on site and in installers possession?							
Installed material expiry date within limits?							
MSDS sheets on-site and in installers possession?							
Are all materials being stored on-site at time of audit as per manufacturers specifications?							
<b>Section 1 - Air Barrier Assembly Notes</b>							
Observations:							
(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)							
Corrections:							

# Air Barrier Assembly

- Materials
- Primary Air Barrier Material
- Sheet / fluid applied





# Air Barrier Assembly

- Materials
- Transition Membrane

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6M290T

## CCW 705FR-A LT

Air & Vapor Barrier

**18" X 100' • 1 ROLL • 150 SQ. FT.**





**Tested for Water Resistance in Wall Assemblies**

Property	Method	Result
Air Permeance	ASTM E2108	0.001 L/s/m² @ 75 Pa 0.0002 (21/100) @ 1.01 PSI
Water Vapor Transmission 50% to 100% RH	ASTM E96-05 (water method) ASTM E96-05 (desiccant method)	0.014 Perm 0.011 Perm
Water Resistance	AFC-107-05, 100' x 2' not for exclusion in sample	10.00-20.00 hours of water @ 5 hours. No leakage

**GENERAL INSTRUCTIONS**  
Before using this product, read the Material Safety Data Sheet (MSDS) for more detailed information. Use according to directions provided by Carlisle Coatings & Waterproofing Incorporated. Remove any dust, dirt or protrusions from substrate. When ambient temperature is below 40°F, store product in heated area until use. Do not proceed with installation unless unrolled and substrate temperature are 20°F or above.

**CCW 705FR-A LT APPLICATION INSTRUCTIONS:**

1. All surfaces accepting CCW 705FR-A LT shall be clean, dry, frost free and in sound condition.
2. All surfaces accepting CCW 705FR-A LT must be prepared with a CCW Contact Adhesive, CCW-700, CCW-700 XL, CCW-700 WR, CCW-710, CM-GRP™ and TRIM-LOCK™ are all acceptable for this application. Follow the application instructions on the respective contact adhesive product data sheet.
3. Install CCW 705FR-A LT in horizontal rows or in vertical runs. Wipe dust or debris from the side of product with a clean, dry rag to assist in forming tight laps. Avoid turning vehicles and air pockets.
4. Press membrane firmly to substrate with a hand roller, especially at laps, corners and terminations.
5. Overlap adjoining pieces of CCW 705FR-A LT a minimum of 3 inches. Use CCW 705FR-A LT strips for detailing. Sequence the installation to provide shingled laps. Membrane shall bear minimum 2 inches into each side of transition such as joints, angle changes and substrate changes. Membrane shall bear 6 inches minimum into adjacent membrane systems such as foundation waterproofing.
6. Apply SURE-SEAL® Lap Sealant or other approved sealant to T-joints, reverse laps and terminations.

**LIMITATIONS**

- Do not install in areas where temperature will exceed 120°F.
- CCW 705FR-A LT is a vapor barrier. The design professional shall determine appropriate use in project wall assemblies.
- Do not leave exposed for more than 180 days.
- Not intended for traffic resistance or as a walking surface.
- Do not install on roofs.
- Do not install over air-curtain systems, except SURE-SEAL Lap Sealant in T-joint details.

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COATINGS & WATERPROOFING

30000 NEW104

**Carlisle Coatings & Waterproofing Incorporated**  
900 Hensley Lane, Wylie, TX 75098 • 800-527-7092 • www.carlisleccw.com

**STORAGE**  
Store CCW 705FR-A LT in a protected area between 40°F and 110°F. Shelf life in original, unopened packaging is 1 year from date of manufacture.

**LIMITED WARRANTY**  
CARLISLE COATINGS AND WATERPROOFING INCORPORATED (CARLISLE) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any CARLISLE materials prove to contain manufacturing defects that substantially affect their performance, CARLISLE will, at its option, replace the material or refund the purchase price.

This limited warranty is the only warranty extended by CARLISLE with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. CARLISLE specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of CARLISLE's liability and Vepor's remedy under this limited warranty shall not exceed the purchase price of the CARLISLE material in question.

The technical data furnished with this product is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied.

**CONTENTS:**  
1 ROLL (180 SQ. FT.)  
18 IN. X 100 FT. (4572 mm x 30.5 M)  
WEIGHT \* LBS. (745) APPROX.

**PART NUMBER:**  
**323638**







# Air Barrier Assembly

- Materials
- Primer / Adhesive





# Air Barrier Assembly

- Materials
- Mastic / Sealant



# Air Barrier Assembly

- Material Storage
- Away from the elements?
- Heated containers / job trailers?
- Original containers?





# Audit Preparation

		YES	NO	N/A	POINTS	
					Installer	Contractor
<b>Section 2 - Audit Preparation</b>						
Certified Installer(s):						
	On-site at time of audit?					
	Applying air barrier?					
Registered Installer(s):						
	On-site at time of audit?					
	Applying air barrier?					
Are the installer(s) certified by ABAA to install self-adhered and fluid-applied air barrier materials? (see back of installers card for certification(s))						
Are daily job site reports on site and in installers possession?						
Are daily job site reports complete and accurate?						
Do <u>all</u> installers have ABAA photo identification card(s) on site and in installers possession?						
Are <u>all</u> installer photo identification card(s) current?						
Are the air barrier accessories (ie. transition materials, mastic, primer) used listed by the manufacturer in their master specification?						
If no, have they been approved by the manufacturer in writing?						
What is <u>project specifications</u> for thickness of the fluid-applied air barrier material (in wet mils)?	0					
What is <u>manufacturer master specifications</u> for application thickness of the fluid-applied air barrier material (in wet mils)?	(MUST list number)					
What is the percentage of ABAA QAP-specified air barrier assembly installed at time of audit?						
What is the percentage of ABAA QAP-specified <u>installed</u> air barrier assembly available for visual inspection?						
<b>Section 2 - Audit Preparation Observations and Mandatory Corrections</b>						
Observations:						
(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)						
Corrections:						
(indicate if corrections are recommended or mandatory as per project or manufacturer specifications)						

# Audit Preparation

- Certification Cards
- Up to date?
- Certifications?



# Audit Preparation

- Daily Job Site Reports
- Current?
- Completed?

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**DAILY JOB SITE REPORT**  
SELF-APPROVED AIR BARRIER ASSEMBLY

Crew # \_\_\_\_ of \_\_\_\_  
Job Site Report # \_\_\_\_  
Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**PROJECT INFORMATION**

PROJECT NAME: \_\_\_\_\_  
AIR BARRIER CONTRACTOR: \_\_\_\_\_  
ABAA CONTRACTOR LICENSE # \_\_\_\_\_

INSTALLER NAME	CERTIFICATION LEVEL (1, 2, 3)	CERTIFICATION #	EXPIRATION DATE

SUBSTRATE TYPE: \_\_\_\_\_ SUBSTRATE TEMPERATURE: \_\_\_\_°F AMBIENT TEMP: \_\_\_\_°F  
SUBSTRATE MOISTURE CONTENT: \_\_\_\_% RELATIVE HUMIDITY: \_\_\_\_%  
SUBSTRATE SURFACE CONDITIONS AND PREPARATION REQUIRED: \_\_\_\_\_  
SUBSTRATE CONDITIONS ACCEPTABLE FOR APPLICATION OF AIR BARRIER: YES \_\_\_\_ NO \_\_\_\_

**MATERIAL INFORMATION**

PROJECT MATERIALS	MANUFACTURER NAME	PRODUCT NAME	BATCH#
PRIMARY AIR BARRIER (AB)			
AB PRIMER			
MASTIC/SEALANT			
THRU-WALL FLASHING			

ARE ALL MATERIALS BEING INSTALLED LISTED IN PROJECT SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
IF NO, HAVE ALL MATERIALS BEEN APPROVED FOR USE BY OWNER OR ARCHITECT? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED PER MANUFACTURER SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED COMPATIBLE (Physical & Chemical) WITH EACH OTHER PER MANUFACTURER? YES \_\_\_\_ NO \_\_\_\_

**INSTALLATION & TESTING LOCATION**

INSTALLATION LOCATION:

# 1 Time Started:	Time Completed:	# 2 Time Started:	Time Completed:
On Gridline:		On Gridline:	
Between Gridline:	to	Between Gridline:	to
Between Elevation:	to	Between Elevation:	to
Wall location:	North South East West	Wall location:	North South East West

DATE OF NAME: 10/24/2015 P-115-041 Rev. 1 ABAA Daily Job Site Report - SA Page 1 of 2

Issued on: 10-29-06

On Gridline

Between Gridline: 15

Between Elevation:

Wall location: North South East West

# 3 Time Started: Time Completed:

On Gridline

**LOCATION**

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**DAILY JOB SITE REPORT**  
FILLED APPLIED AIR BARRIER ASSEMBLY

Crew # \_\_\_\_ of \_\_\_\_  
Job Site Report # \_\_\_\_  
Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**PROJECT INFORMATION**

PROJECT NAME: \_\_\_\_\_  
AIR BARRIER CONTRACTOR: \_\_\_\_\_  
ABAA CONTRACTOR LICENSE # \_\_\_\_\_

INSTALLER NAME	CERTIFICATION LEVEL (1, 2, 3)	CERTIFICATION #	EXPIRATION DATE

SUBSTRATE TYPE: \_\_\_\_\_ SUBSTRATE TEMPERATURE: \_\_\_\_°F AMBIENT TEMP: \_\_\_\_°F  
SUBSTRATE MOISTURE CONTENT: \_\_\_\_% RELATIVE HUMIDITY: \_\_\_\_%  
SUBSTRATE SURFACE CONDITIONS AND PREPARATION REQUIRED: \_\_\_\_\_  
SUBSTRATE CONDITIONS ACCEPTABLE FOR APPLICATION OF AIR BARRIER: YES \_\_\_\_ NO \_\_\_\_

**MATERIAL INFORMATION**

PROJECT MATERIALS	MANUFACTURER NAME	PRODUCT NAME	BATCH#
PRIMARY AIR BARRIER (AB)			
AB PRIMER			
TRANSITION MATERIALS (TM)			
TM PRIMER			
MASTIC/SEALANT			
OTHER (SEAL, LEAD FLASHING, ETC.)			

ARE ALL MATERIALS BEING INSTALLED LISTED IN PROJECT SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
IF NO, HAVE ALL MATERIALS BEEN APPROVED FOR USE BY OWNER OR ARCHITECT? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED PER MANUFACTURER SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED COMPATIBLE (Physical & Chemical) WITH EACH OTHER PER MANUFACTURER? YES \_\_\_\_ NO \_\_\_\_

DATE OF NAME: 10/24/2015 P-115-041 Rev. 3 ABAA Daily Job Site Report - PL Page 1 of 2

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**DAILY JOB SITE REPORT**  
SPRAY POLYURETHANE FOAM AIR BARRIER ASSEMBLY

Crew # \_\_\_\_ of \_\_\_\_  
Job Site Report # \_\_\_\_  
Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**PROJECT INFORMATION**

PROJECT NAME: \_\_\_\_\_  
AIR BARRIER CONTRACTOR: \_\_\_\_\_  
ABAA CONTRACTOR LICENSE # \_\_\_\_\_

INSTALLER NAME	CERTIFICATION LEVEL (1, 2, 3)	CERTIFICATION #	EXPIRATION DATE

SUBSTRATE TYPE: \_\_\_\_\_ SUBSTRATE TEMPERATURE: \_\_\_\_°F AMBIENT TEMP: \_\_\_\_°F  
SUBSTRATE MOISTURE CONTENT: \_\_\_\_% RELATIVE HUMIDITY: \_\_\_\_%  
SUBSTRATE SURFACE CONDITIONS AND PREPARATION REQUIRED: \_\_\_\_\_  
SUBSTRATE CONDITIONS ACCEPTABLE FOR APPLICATION OF AIR BARRIER: YES \_\_\_\_ NO \_\_\_\_

**MATERIAL INFORMATION**

PROJECT MATERIALS	MANUFACTURER NAME	PRODUCT NAME	BATCH#
PRIMARY AIR BARRIER (AB)			
TRANSITION MATERIALS (TM)			
TM PRIMER			
MASTIC/SEALANT			

	"A-Size" (Isoc) COMPONENT	"B-Size" (Resin) COMPONENT
LOT #		
MANUFACTURE DATE		
EXPIRATION DATE		

ARE ALL MATERIALS BEING INSTALLED LISTED IN PROJECT SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
IF NO, HAVE ALL MATERIALS BEEN APPROVED FOR USE BY OWNER OR ARCHITECT? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED PER MANUFACTURER SPECIFICATION? YES \_\_\_\_ NO \_\_\_\_  
ARE ALL MATERIALS BEING INSTALLED COMPATIBLE (Physical & Chemical) WITH EACH OTHER PER MANUFACTURER? YES \_\_\_\_ NO \_\_\_\_

DATE OF NAME: 10/24/2015 P-115-042 Rev. 3 ABAA Daily Job Site Report - SPP Page 1 of 2

Issued on: 10-29-06

On Gridline

Between Gridline: 15

Between Elevation:

Wall location: North South East West

# 3 Time Started: Time Completed:

On Gridline



# Substrate Conditions

		YES	NO	N/A	POINTS	
					Installer	Contractor
<b>Section 3 – Substrate Conditions, Preparations, and Visible Observations</b>						
<b>Substrate Material(s):</b>						
	Concrete Block (CMU)					
	Concrete (poured)					
	Exterior Gypsum Wallboard					
	OSB					
	Plywood					
Other: _____						
<b>Ambient Conditions:</b>						
Temperature:	_____ °F					
Humidity:	_____ % RH					
Wind:	_____ mph					
Full sun, partial shade, full shade?						
Is temperature, wind and humidity within limits of manufacturers instructions?						
<b>Substrate Conditions:</b>						
Temperature (°F):	_____					
Moisture content (MC):	_____					
Is temperature and moisture content within limits of manufacturers instructions?						
<b>Substrate Preparation:</b>						
	Dry from bulk water and surface moisture?					
	Clean and free of grease, oil, wax, rust and loose scale solvents and other contaminants that may impair the bond of the air barrier materials?					
	Unit masonry and cast-in-place concrete free of excess mortar, flush and free of voids?					
	Unit masonry joints smooth, flush and free of voids?					
	Joints on plywood, gypsum board and other substrates prepared in accordance with self-adhered air barrier manufacturer's master specification?					
	Substrate primed in accordance with self-adhered air barrier manufacturer's master specification?					
	Are substrate joints being prepared in accordance with self-adhered manufacturer's instructions?					
If no, please describe in the observations section below.						
	Is the substrate temperature within manufacturers requirements during application of self-adhered materials during the audit?					
<b>Section 3 - Substrate Observations and Mandatory Corrections</b>						
<b>Observations:</b>						
(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)						
(indicate if deficiencies of that specific work item are minor ≤10% or major >10% to facilitate the correct demerit points)						
<b>Corrections:</b>						
(all deficiencies noted in Section 3 shall be accompanied by recommendations for corrective action and referenced photos shall be in final submitted report)						
(indicate if corrections are recommended or mandatory as per project or manufacturer specifications)						

# Unacceptable Substrates

- CMU
- Concrete



# Unacceptable Substrates

- Gypsum Sheathing
- Plywood





# Unacceptable Substrates

- Steel



# Unacceptable Substrates

- Foundations





# Acceptable Substrates

- CMU
- Concrete



# Acceptable Substrates

- Sheathing





# Acceptable Substrates

- Steel



# Acceptable Substrates

- Foundations





# Visual Inspection

		YES	NO	N/A	DEMERIT POINTS	
					Installer	Contractor
<b>Section 4 - Visual Inspection</b>						
Pictures taken by auditor ?						
Video taken by auditor ?						
Location of inspection:						
North Wall:						
South Wall:						
East Wall:						
West Wall:						
If any of the above listed as N/A, provide details in the observations section below.						
<b>Self-Adhered Materials (abbreviation "MS" - Manufacturer Master Specification):</b>						
Were transition materials specified and used on this project?						
If no, explain in observations section.						
If yes, were they installed as per project specifications?						
Was primer and transition material applied at a temperature in accordance with manufacturers specifications at time of audit?						
Primer for transition materials used specified in accordance with MS?						
Did the auditor observe the installer applying primer?						
If yes, did sufficient time elapsed for self-adhered air barrier and transition membrane application over primer in accordance with MS?						
Transition membranes and self-adhered air barrier materials applied at a temperature in accordance with MS at time of audit?						
Self-adhered air barrier and transition membrane seams, and end joints overlapped in accordance with MS?						
Transition membrane and self-adhered air barrier materials fully bonded to substrate, rolled smooth, free of wrinkles, not delaminated, free of "fish mouths" and voids?						
Are damaged areas or voids from pull-adhesion testing repaired in accordance with MS?						
All joints and exposed edges in transition materials and self-adhered air barrier materials terminated in accordance with MS?						
Were transition membranes installed as per MS?						
Width of transition membrane meets MS?						
Has self-adhered air barrier materials been kept free of contact with non-compatible (physical or chemical) materials?						
As per daily work sheets is transition materials and self-adhered air barrier material within manufacturers UV exposure time limit at the time of audit?						
Were transition membranes installed at building envelope penetrations such as corners, joints, drains, penetrations and window/door openings as per MS or project specifications?						
(Pictures shall be taken of all transition areas and included in submitted report in areas such as but not limited to roof/wall, wall/foundation, window/wall, expansion joint, change in plane, change in substrate and penetrations)						
<b>Section 4 - Visual Inspection Observations and Mandatory Corrections</b>						
Observations:						
(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)						
(indicate if deficiencies of that specific work item are minor ≤10% or major >10% to facilitate the correct demerit points)						
Corrections:						
(all deficiencies noted in Section 5 shall be accompanied by recommendations for corrective action and referenced photos shall be in final submitted report)						
(indicate if corrections are recommended or mandatory as per project or manufacturer specifications)						

Details...

You don't need details.  
You've been doing this  
for 20 years...



**Details**  
**Details Details**

# Visual Inspection

## Primer Application

- Is primer applied?
- Is it consistent; transparent; still tacky?





THE INSTALLER...in

THE GOOD  
AND THE BAD  
AND THE UGLY

air barrier  
**abaa**  
association of  
america



# The Good...

- Fluid applied



# The Good...

- Sheet applied





# The Good...

- SPF



# The Bad...

- Fluid applied





# The Bad...

- Sheet applied



# The Bad...

- SPF





# The Ugly...

- Fluid applied



# The Ugly...

- Sheet applied



# The Ugly...

- SPF



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america

(all deficiencies noted in S

nal submitted report)



# Physical Testing

- Discs properly sized?



# Physical Testing

- Installer / Auditor
- Membrane remain on the substrate?
- Membrane / substrate facer release?





air barrier  
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america

(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)

# SPF Equipment/ Material Testing

- Equipment / Materials



# Foam Thickness

				YES	NO	N/A	DEMERIT POINTS	
							Installer	Contractor
<b>Section 7 - Foam Thickness</b>								
Number of passes: _____				(MUST list values from spraying during audit or from density core sample)				
				Are all passes of SPF ≤ 2"?				
North Elevation:	1)	(MUST list tested value)	inch(es)					
	2)	(MUST list tested value)	inch(es)					
	3)	(MUST list tested value)	inch(es)					
	4)	(MUST list tested value)	inch(es)					
	5)	(MUST list tested value)	inch(es)					
	6)	(MUST list tested value)	inch(es)					
AVERAGE	0.00	inch(es)	Meets minimum project-specified thickness?					
East Elevation:	1)	(MUST list tested value)	inch(es)					
	2)	(MUST list tested value)	inch(es)					
	3)	(MUST list tested value)	inch(es)					
	4)	(MUST list tested value)	inch(es)					
	5)	(MUST list tested value)	inch(es)					
	6)	(MUST list tested value)	inch(es)					
AVERAGE	0.00	inch(es)	Meets minimum project-specified thickness?					
South Elevation:	1)	(MUST list tested value)	inch(es)					
	2)	(MUST list tested value)	inch(es)					
	3)	(MUST list tested value)	inch(es)					
	4)	(MUST list tested value)	inch(es)					
	5)	(MUST list tested value)	inch(es)					
	6)	(MUST list tested value)	inch(es)					
AVERAGE	0.00	inch(es)	Meets minimum project-specified thickness?					
West Elevation:	1)	(MUST list tested value)	inch(es)					
	2)	(MUST list tested value)	inch(es)					
	3)	(MUST list tested value)	inch(es)					
	4)	(MUST list tested value)	inch(es)					
	5)	(MUST list tested value)	inch(es)					
	6)	(MUST list tested value)	inch(es)					
AVERAGE	0.00	inch(es)	Meets minimum project-specified thickness?					
(for large multi-storey projects, conduct additional thickness testing and submit to ABAA with this report)								
Is an additional thickness testing document submitted to ABAA for large multi-storey buildings?								
Do areas around windows, doors, protrusions and penetrations meet project-specified thickness?								
If no, explain in observations section.								
<b>Section 7 - Foam Thickness Observations and Mandatory Corrections:</b>								
Observations:								
(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)								
Mandatory Corrections:								



# Foam Thickness

- Core cuts
- Thickness per lift






# Installer Awareness

	YES	NO	N/A	DEMERIT POINTS	
				Installer	Contractor
<b>Section 7 - Installer Awareness</b>					
ABAA installer(s) aware of any deficiencies in the applied air barrier assembly?					
Was the ABAA contractor informed of deficiencies, post-audit?					
Does the ABAA contractor and installer(s) have a proper corrective action plan in place to address deficiencies?					
<b>Section 7 - Installer Awareness Observations and Mandatory Corrections</b>					
Observations:					
<i>(any boxes checked above with "NO" or "N/A" shall be explained as well as deficiencies noted during the audit)</i>					
Corrections:					

# Installer Awareness

## Post-Audit Deficiency Sheet

- Installer
- General Contractor

	<b>Post-Audit Deficiency Sheet</b>
Audit Date and Time:	January 25, 2017; 8:00 am (ABAA Audit 4)
Project Name:	
Project Address:	
Auditor Name & Phone Number:	Robert Mimmo / 781-335-6465
Auditor Certification Number:	10029
Accredited Contractor Name:	
Primary Contact & Phone Number:	
General Contractor:	
Primary Contact & Phone Number:	

### Post-Audit Deficiency Details:

The following conditions were observed during this audit:

Installation Observations: 1) Blistered FA AVB membrane on the south elevations of Buildings A and B; 2) Slumped FA AVB membrane on the west, south and east elevations of Building A, and the south elevation of Building B; 3) Wrinkled transition membrane on the south elevation of Buildings A and B, and on the east elevation of Building A; 4) Trapped water behind window-sill transition membrane on the west elevation of Building A; 5) Un-patched / non-repaired transition membrane that had been sliced to release trapped water on the west elevation of Building A; 6) Missing transition membrane at isolated location on the east elevation of Building A; 7) Unsealed (no termination mastic) transition membrane seam on the east elevation of Building A;

Testing Observations: 8) Plywood test discs are not the minimum 2-1/4" diameter as required by ABAA. Discs were 2" diameter. Adhesion tests performed during the audit need to be repeated using properly sized discs; 9) Thickness testing indicates material thickness of the Air-Bloc MR 16 is less than the project and the manufacturer's requirements. Additional material application is needed.

Documentation Observations: 10) Daily Job Site Reports for FA membrane do not show wet-mil thickness readings. Readings must be taken and documented to confirm the Installer's awareness of material thickness during application.

Auditor - Name:	Robert Mimmo	Date:	25-Jan-17
Auditor - Signature:		Date:	
Air Barrier Contractor Representative - Name:		Date:	
Air Barrier Contractor Representative - Signature:		Date:	
General Contractor - Name:		Date:	
General Contractor - Signature:		Date:	

Disclaimer: this is not the official audit report, it is a brief summary of outstanding deficiencies that can be addressed prior to official report being released. copy of this form shall be left with the Air Barrier Contractor and General Contractor. shall be emailed (take a picture and email) or faxed (1-866-956-5819) to the ABAA QAP Administrator the day of the audit.

Auditor: A  
Auditor: A copy

# QUESTIONS???

# Thank You!

