WEATHERWELD™
ROOFING MADE SIMPLE

Roof Management Report

MURRIETA VALLEY UNIFIED SCHOOL DISTRICT

DOROTHY MCELHINNEY MIDDLE SCHOOL

BUILDING F



Measurements are from aerial survey and do not include roof slope or parapet walls.
This image is for internal use and not to be used for bidding.

Prepared for:

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Video / More Information / Next Steps

WEATHERWELD
A Division of Liquiform Technologies, Inc.
9757 7th St Suite 803 Rancho Cucamonga, CA 91730 | (888) 440-3224

BUILDING SUMMARY

Building F

OVERVIEW



OWNER:	Murrieta Valley Unified School District
BUILDING:	Dorothy McElhinney Middle School Building F
ADDRESS:	35125 Briggs Rd, Murrieta, CA 92563, USA
CONTACT:	Jose Contreras
EMAIL:	jcontreras@murrieta.k12.ca.us
PHONE:	(951) 826-6324
INSPECT DATE:	2/21/2025
DATE PREPARED:	2/26/2025

BUILDING INFORMATION

ROOF AGE	ACCESS	SLOPE	HEIGHT	CLIMATE ZONE	ROOF AREA *(SqFt with Walls)*
20	Internal Hatch	< 1/4"	36 ft.	Zone 10	25,695

ROOF SYSTEM COMPONENTS

	TYPE	CONDITION	TYPE / COUNT		CONDITION
ROOF CONSTRUCTION					
EXISTING ROOF:	Layers: 1 Built-Up - Smooth/Granule	Poor	*ROOF DECK:*	Metal	Fair
	SEAM CONDITION:	Poor	*INSULATION:*	Polyisocyanurate (ISO)	Fair
PERIMETER EDGES & WALLS					
EDGE TYPES:	Parapet Walls				
WALL TYPES:	CMU	Poor	*WALL FLASHINGS:*	Metal Coping Caps , Surface Mounted Flashings	Poor
DRAINAGE, PENETRATIONS & EQUIPMENT					
DRAINS:	Sumped Roof Drain , Overflow Roof Drain				Slow Drainage
PENETRATIONS:	Plumbing Vent Pipe - 15	Poor	*SKYLIGHTS:*	None	
ROOFTOP EQUIP:	RTU - 35		*ROOF HATCHES:*	None	

CORRECTIVE ACTIONS

DEBRIS ON ROOF	PONDING WATER	ABANDONED EQUIPMENT
NO	YES	NO

LINE ITEM CONSIDERATIONS

	AREA OF CONCERN	COUNT	UNIT COST	BUDGET
1				
2				
3				
4				
5				
		TOTAL - LINE ITEMS:		
		ROOF SYSTEM COST at / sqft.		

PROPOSED SOLUTION

WEATHERWELD ROOF SYSTEM	WARRANTY
I-1B-16-30-A	**40 YEAR LEAK FREE NDL**

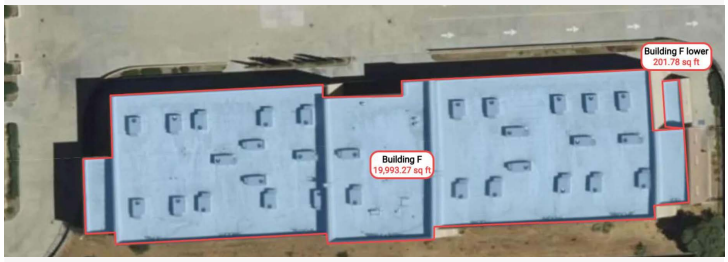
Robert Weygant

WEATHERWELD

2/27/2025 | 11 Photos

Murrieta Valley USD
Dorothy McElhinney MS - Building F

1



This topo map shows the building that is the basis of this photo report. The buildings are outlined and shaded.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/26/2025, 10:25am
Creator: Kody Berry

2



This roof report is the assessment of Building F and totaled at approximately 25,695 square feet including the parapet wall surfaces.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:28pm
Creator: Kody Berry

3



The roof was core tested to determine the components of the roofing system from the deck up.
The roof assembly for this building consists of a:
• Metal Deck
• ISO
• Granule Surfaced MB/BUR Membrane

This core test hole was patched and is 100% watertight. The core sample was retained for our internal testing.

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Date: 2/21/2025, 1:19pm
Creator: Kody Berry



Flush mount drains are installed with overflows. The roofing material is held in place by the compression ring of the drain. It is recommended to remove the membrane, install a solid peel and stick membrane, and encapsulate WeatherWeld into the drain bowl.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:14pm
Creator: Kody Berry



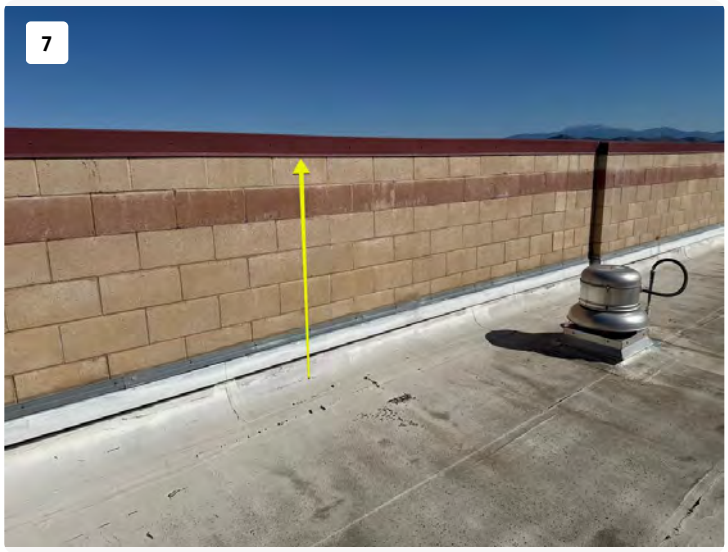
Building F has parapet walls at the perimeter, ranging in height from 24" to 60". Eliminating the existing counterflashing and applying WeatherWeld to the top of the wall , terminating beneath the coping cap.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:12pm
Creator: Kody Berry



Base flashings are the transitions between the flat roof and parapet walls. This area on a roof of this type is the most prone to cracking, stress, and deterioration, which caused roof leaks into the building.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:15pm
Creator: Kody Berry



Existing roofing terminates above the base flashing at counter-flashing.
New application will extend to the top of the CMU parapet wall and beneath the coping cap.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:11pm
Creator: Kody Berry



New sheet metal coping needs to be installed at tops of parapet walls.
This building needs a wood nailer and a new sheetmetal coping installed during roof work.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:12pm
Creator: Kody Berry



Base flashings are the transitions between the flat roof and parapet walls. This area on a roof of this type is the most prone to cracking, stress, and deterioration, which caused roof leaks into the building. Before the roof system is installed, any deficiencies in the roof are repaired or removed and replaced as needed. WeatherWeld will be installed from the top of the wall to the bottom of the drain.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:11pm
Creator: Kody Berry



Open seams in the roof membrane were observed directly in the path of drainage. Seamless encapsulation elimi-nates seams and provides direct access to the drain.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:24pm
Creator: Kody Berry



Blisters and buckles in the built-up-roof most common-ly occur for two reasons. 1) Improper installation or lack of adhesive creates pockets of trapped air in a roof. or 2) Moisture between roof layers.
In the case of this roof, the blisters and buckles inhibit drainage, creating a standing/ponding water condition which led to debris build-up.

Project: Murrieta Valley USD, Dorothy McElhinney MS - Building F
Date: 2/21/2025, 1:25pm
Creator: Kody Berry

WHAT DOES THIS ROOF NEED TO STAY WATERTIGHT?

Murrieta Valley Unified School District Dorothy McElhinney Middle School Building F

If your existing roof is in serviceable condition and **Targeted Maintenance** will solve roof leaks for the long term, it's recommended to repair the roof and not spend additional money on roof reinforcement or a new roof system until it is necessary.

If targeted maintenance does not keep the building watertight, **Reinforcing the Existing Roof** with WeatherWeld may be your next step.

Certain roof conditions and roof types dictate that your existing roof may not be a suitable candidate for reinforcement. In these cases, **Roof Removal and Replacement** will be required.

TARGETED MAINTENANCE

It is recommended to perform regular maintenance on this roof using a targeted maintenance plan to repair/seal areas of the roof that could be leaking. WeatherWeld can be installed by hand for small repairs to the existing roof. The owner/facilities manager can perform repairs on their own, or have an approved contractor install WeatherWeld out of buckets. WeatherWeld's Technical Representative will help create a scope of work and assist in creating a plan to get the roof watertight under the targeted maintenance plan.

REINFORCE EXISTING ROOF

WeatherWeld is the perfect solution to eliminate the roof leaks on this building. The existing roof can stay in place, and a WeatherWeld roof reinforcement coating system will be installed directly over the existing roof making the entire roof seamless from the top of the parapet wall to the bottom of the drain. This will eliminate all roof leaks. By installing a WeatherWeld roof on this building, the facilities team will have a leak free roof that will require no maintenance for the life of the warranty. You get the benefit of WeatherWeld encapsulating the ductwork and equipment issues all at once. The finished roof will have a white "cool roof" title 24 compliant surface.

REMOVE ROOF – INSTALL NEW ROOF SYSTEM

The following cases indicate that a roof needs to be removed:



1.) The building has more than one roof system installed—building code only allows a 1.) maximum of two roof systems to be installed on a building.
2.) If there is trapped moisture in the roof system.
3.) Building modernization requires exposing the roof deck.
4.) Roof drainage needs improvement.

REMOVE TOP ROOF LAYER – INSTALL NEW ROOF SYSTEM

In some cases, removing the top layer of roofing while leaving the roof beneath is a candidate for WeatherWeld roof reinforcement. In your case, remove only the top layer, leaving the original roof system. Once the top roof is removed, prepare the original roof, and install WeatherWeld seamless roof reinforcement.

REMOVE EXISTING ROOF – REUSE EXISTING INSULATION

Remove the existing roof but reuse the existing insulation. If the roofing system requires removal but existing insulation is not too old and can be reused, attach a ½" gypsum substrate board and install a WeatherWeld new roof reinforcement system.

WHY ROOFS FAIL

WHY DOES THE EXISTING ROOF FAIL?

Roofing systems fail for various reasons in a western climate like California. The following are examples of common failures.

Physical Effects

- UV Exposure: The primary reason for roofing failure is UV exposure. The Sun deteriorates roofing membranes faster than other climate regions.
- Thermal expansion and contraction: with an average temperature swing of 30 degrees, buildings cycle a minimum of 2 times a day. Over time, this creates concentrated stress on roofing materials.
- Age: All roofs deteriorate with age. When you combine the factors above, roofs dry out and become brittle, seams degrade, and roof systems lose the ability to keep the building waterproof.

Existing Roof Types and Common Issues

Built-up roof: layers of felt saturated in asphalt is one of the oldest types of roofing. As built-up roofs age, UV exposure dries out asphalt, making it brittle. This causes the roof to lose strength and elongation after approximately 10 years.
The following observations can help determine the condition of built-up roofs through visual inspection:

- Micro granules piled up near roof drains
- Exposed fiberglass felt in the field of the roof
- Ridging, buckling, or blistering in the roof system.
- Material shrinkage at intersections and base flashings

Modified built-up roofs have the same observations above and close inspection could show UV damage creating micro fractures in the roof membrane.

Gravel surfaced built-up roofs have the same observations above except damage is hidden due to the roof being covered with loose gravel—inspect carefully.

Single ply roofs: thin layers of plastic rolled out, creating a plastic membrane, must be seamed/welded by hand in the field. Rolls are designed to be installed on flat surfaces with no penetrations. Material ranges between 30 and 70 mills (extremely thin), depending on plastic membrane type. The life cycle of plastic roof membranes varies drastically on the type of plastic and the location where material is installed. A perfectly installed single ply in perfect climate might last 20 years. However, results are not typical, and life cycle varies. Single ply roofs fail for various reasons. The following observations can help determine the condition of single ply roofs through visual inspection:

- Chalking or cracking on the surface of the membrane
- Loose or delaminated seams
- Exposed scrim/fabric reinforcement
- Burn through at roof fasteners (discoloration at fasteners and plates)
- Fluttering of membrane in windy conditions
- Discoloration and other types of surface changes in plastic membrane
- Material shrinkage at intersections and base flashings

Foam and coating roofs: Spray applied foam relies on the surface coating to protect the foam underneath. As soon as the thin surface coating wears away, foam absorbs water and basically turns it into a sponge. Foam roofs require recoating the foam on a maintenance plan (5-10 years). Foam should be considered a roof maintenance system because these types of roofs are only as watertight as the thin coating on top. The following observations can help determine the condition of foam roofs through visual inspection:

- Deterioration of surface coating exposing foam insulation underneath
- Blisters in foam layers
- Wet sponge-like areas where water is saturated into foam insulation
- Holes in roof where animals peck holes in roof surface
- Uneven application inhibiting water drainage

Metal roofs: roofs with standing seam or corrugated metal rely on overlapped/crimped sheet metal panels to remain watertight. In most cases, sheet metal panels are not the cause of roof leaks. Building movement, UV deterioration of waterproofing seals, and unsealed fasteners create roof leaks. In rare occurrences, oxidation or deterioration of surface coatings corrodes the sheet metal creating rust and holes in the panel itself. The following observations can help determine the condition of metal roofs through visual inspection:

- Exposed sheet metal seams
- Failed repair material seals at seams, penetrations, and joints
- Backed out fasteners with deteriorated rubber gaskets
- Oxidation/rust in panels

HOW DO I KNOW WHEN TO REPLACE MY ROOF?

If the roof can be repaired to get the roof watertight, repair the roof. If repair won't solve all the roof problems or repair would be too extensive, roof reinforcement of the entire roof is recommended.

In some cases, legally or structurally, where the roof cannot be reinforced, removal may be required to start with a new roof system.

OPTIONS

WHAT ARE THE OPTIONS FOR REPLACEMENT OF MY ROOF?

Remove and replace the entire roof system

Most roofs with only one layer installed do not require removal. A roof needs to be removed only if there is underlying deck damage, moisture, or design defect in the existing roof system. Buildings that have two roof systems/layers installed, must be removed because building code doesn't allow more than two layers of roofing on a building. Roof removal also requires a minimum R-Value requirement to meet CA Title 24. This cost could be significant considering the cost of removal and flashing height increases, plus the cost of disruption to the building and its occupants. This is the worst-case scenario and only recommended when required.

Reinforce the existing roof

Your existing roof leaks because the roofing system has lost its ability to keep the roof watertight. This could be due to uv exposure, moisture in the roofing system, failing seams, or improper installation from the start. Overall, most roofs over 10 years old have lost the strength required to remain watertight.

Seamless Roof Reinforcement is stronger than the existing roof was when it was new. WeatherWeld takes place of the existing roof, creating a seamless reinforced membrane designed to encapsulate most existing roofs from the top of a wall continuously into the drain, making roof leaks impossible.

OTHER ROOFING OPTIONS - WHATS THE DIFFERENCE?

"ROOF RESTORATION"

There is no such thing. Age affects roofs the same way it affects people and everything else. You can't make something old into something new. Plasticizers will not regenerate within the materials, and the tensile strength lost through cycle fatigue will not return. The laws of physics always trump the promises of marketing. Cool roof coatings and "restoration" products are marketing hoaxes—they can't penetrate the existing substrate matrix at any meaningful depth and are not thick enough to be resilient long term.

COATINGS

Elastomeric and silicone are another false hope. Coating a roof does nothing but cover the roof in its existing condition with a layer of paint. The "guarantees" that are issued on these systems usually cover only material, not leaks. We have seen many 50-year silicone guarantees, but have never seen a silicone roof last a warranty length still in service.

SINGLE PLY

Single ply is a product that must be patched and repaired from the start. Typical installations with TPO and PVC last less than 15 years in the Western United States. Plastic sheets must be unrolled and welded with a hot air welder at every seam. This creates the possibility for human error.

Every seam must be physically inspected because you are left with a thin sheet of plastic with miles of welds and patches on a typical roof. The sun degrades synthetic materials at unpredictable rates, and this means the lifecycle of synthetic materials are hard to judge. This is the reason why most single plies are reformulated repeatedly.

WHAT TO LOOK FOR WHEN CHOOSING A ROOF

A long-term solution to keep the roof watertight should have the following characteristics:

SEAMLESS: The existing roof leaks because it has seams. Water finds a seam and leaks into your building. Theoretically, if a roof is seamless, there would be no place for it to leak.

STRONG: A roof must be strong enough to withstand thermal movement.

DURABLE: The seamless membrane must be resistant to rooftop traffic, debris on the roof, and rooftop equipment.

TIME TESTED: The product must have a real track record of successful performance in real life applications, not just accelerated weathering tests in a lab. Note that most single ply and coatings have not been around for a warranty period.

GUARANTEED: An NDL warranty that covers labor, material, and repairs, for the life of the warranty. Most warranties cover material but not labor; the fine print with warranty exclusions lets manufacturers escape liability.

AFFORDABLE: Add up the cost of the roof, including maintenance and replacement over 40 years. Why 40 years? Because most buildings will be here 40 years from now. When you choose roof systems that are designed to last with minimal maintenance, the lifecycle cost is lower.

WeatherWeld is a roof designed to withstand the elements and provide a leak free roof for generations. More than 30 years ago, WeatherWeld created a seamless roof system designed to reinforce existing roofs by combining the strongest long-lasting materials in the world. By combining ceramic emulsion and intertwined fiberglass together, the seamless membrane encapsulates the entire roof from the top of the wall to the bottom of the drain.

CHARACTERISTICS OF WEATHERWELD

SEAMLESS: WeatherWeld makes your roof one seamless encapsulated membrane.

STRONG: WeatherWeld is reinforced with unbelievable amounts of long strand fiberglass, which creates a membrane that you can literally drive a truck on.

DURABLE: WeatherWeld is resistant to rooftop traffic and damage.

ROBUST: WeatherWeld is thick and durable; when you see it, you'll be able to tell why it lasts so long.

TIME TESTED: WeatherWeld is one of the only roofs in the world that has lasted a warranty length and is still in excellent condition; 30+ years and still doing its job of keeping buildings watertight.

GUARANTEED: The real warranty in a roof is in the product. Don't buy based on marketing materials. Rather, buy a product that you can see will last. WeatherWeld comes with an industry leading 40-year NDL warranty that's simple: **"IF IT LEAKS, WE FIX IT."**

AFFORDABLE: The cheapest most cost-effective way for you to have a leak-free roof for generations, is to buy the right roof the first time; a roof that won't require maintenance or replacement.

SAFE: Using environmentally friendly materials that are water based, there is very little smell and disruption during installation. Most school and healthcare clients install WeatherWeld when buildings are occupied, with no complaints.

WHAT YOU GET WHEN YOU BUY WEATHERWELD

WeatherWeld:

- **Is ¼" thick, made of strong and durable materials.**
  Coatings and restoration systems are thin and weak
- **Comes with a 40-year NDL warranty.**
  Coatings and restoration systems offer warranties between 10 and 20 years, and they HAVE EXCLUSIONS for your type of roof.
- **Is seamless. It's one encapsulated piece from the top of the wall to the bottom of the drain.**
  Coatings and restoration systems are reinforced with a thin weak piece of polyester; some are not even reinforced. Unreinforced means not strong, and roof movement will continue (this means the roof will still leak).
- **Comes with turnkey support. With WeatherWeld, you get a dedicated technical team that is available 24/7 to ensure your WeatherWeld roof will last for generations. You get everything from reports, diagnostics, on-site inspections, etc.**
  Coatings and restoration companies either have zero technical support or they charge for inspection and services—you deserve a simple process from start to finish.
- **Is simple to repair. When you need to put new equipment or penetrations on the roof, repairing WeatherWeld is simple. WeatherWeld repair is available in a bucket that you or your maintenance team can install by hand. Simply contact us, and problem solved!**
- **Requires no maintenance. All you have to do is keep the drains clear.**

PROJECT PROFILES



University of California, Riverside
WeatherWeld R-16-30-A
Warranty 30 Year NDL



Menifee Union School District School
WeatherWeld R-16-30-M-A
Warranty 30 Year NDL



Anaheim Convention Center
WeatherWeld R-1P-16-45-A & R-16-30-A
Warranty 30 Year NDL



Pomona Valley Hospital
NCNN-1B-16-30-A
Warranty 40 Year NDL



Long Beach Main Library
WeatherWeld R-16-30-A
Warranty 20 Year NDL



State of California Water Resources Building
WeatherWeld W-R-1P-16-45-A
Warranty 20 Year NDL

WeatherWeld™

ROOFING MADE SIMPLE

- ✓ **40 Year NDL Warranty**
- ✓ **CA Title 24 Compliant**
- ✓ **Seamless Membrane**
- ✓ **Patented Technology**
- ✓ **UL Class A**

- ✓ **Replacement**
- ✓ **New Construction**
- ✓ **Insulated**

I-1B-16-30-A

Title 24 Compliant Acrylic Top Coating

Acrylic Base Coating

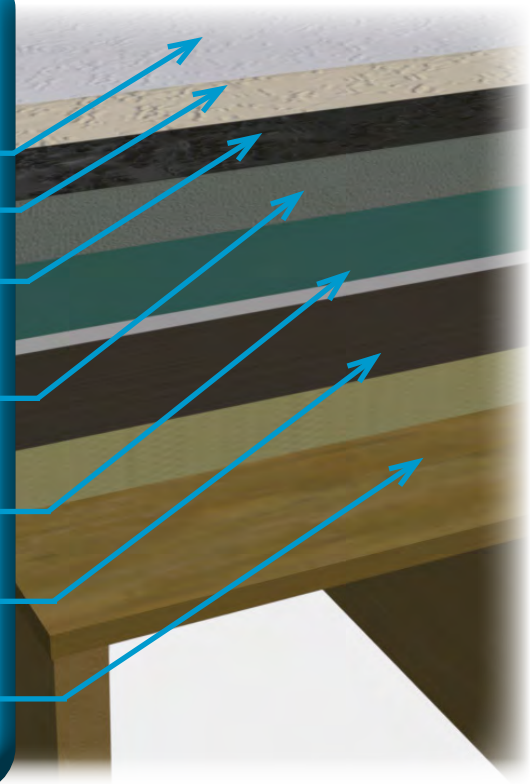
Reinforced Emulsion Membrane

UL G2 Base Sheet

DensDeck Prime Cover Board

Rigid Polyisocyanurate Insulation Board

Approved Roof Deck



WeatherWeld I-1B-16-30-A is a completely seamless insulated roof system designed for installation over all approved roof deck types, or to recover and enhance existing approved roof systems.
WeatherWeld is engineered to be the strongest roof system on the market.
WeatherWeld combines the longest lasting and strongest materials in the world with a patented 3D printer to create a seamless membrane designed to last for generations.
WeatherWeld water based emulsion, sprayed with intertwined fiberglass creates a virtually impenetrable membrane.

MATERIALS

Insulation/Cover Board: Adhered or Fastened
- Insulation: Polyisocyanurate - R Value as Required
- Cover Board: 1/2" DensDeck Prime *(Adhered)*

Base/Anchor Sheet: Adhered
- Base Sheet: 1 Layer - UL G2, Fiberglass Reinforced

Reinforced Membrane: Spray Applied
- Emulsion: 30 Gal. - WeatherWeld Asphalt Emulsion
- Fiberglass: 16 Lbs. - WeatherWeld Fiberglass Roving

Reflective Roof Coating: Spray Applied
- Base Coat: 1.5 Gal. WeatherWeld Base Coat
- Top Coat: 1.5 Gal. WeatherWeld Title 24 Top Coat

or

- Aluminum Coating: 2 Gal. WeatherWeld Aluminum Coating

Accessory Products:
- Self Adhering Membrane: WeatherWeld SA Membrane
- Asphalt Primer: ASTM D312 Water Based Asphalt Primer

Coverage rates listed are per 100 square feet of applied membrane.

SYSTEM PROPERTIES

Property	Value	Standard
Performance		
Weight Per Sq. Ft.	2.2 Lbs (1.0 Kg)**	
Thickness:	350 mil (9mm) DFT	
Tensile Strength:	600 psi (4136 kN/m$^{2)}$	*ASTM D2370*
Elongation:	10%	*ASTM D4830*
Puncture Resistance:	700 Lbs.	*ASTM D4830*
Water Absorption:	1% Maximum (by Weight)	*ASTM D570*
Fire Rating:	UL Class A Assembly	*ASTM E84*
Reflectivity - CA Title 24*		
SRI:	104 / 93 after 3 Years	*As Calculated*
Solar Reflectance:	0.83 / 0.75 after 3 Years	*ASTM C1549*
Thermal Emittance:	0.88 / 0.92 after 3 Years	*ASTM C1371*

**Based upon application with WeatherWeld Cool Roof Coating*

*** Roof membrane weight. Contact WeatherWeld for total system weight including insulation and coverboard.*

WeatherWeld - A Division of Liquiform Technologies Inc.
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WEATHERWELD
ROOFING MADE SIMPLE

I-1B-16-30-A

OVERVIEW

Installation of the WeatherWeld system is a simple 5 step process:

1. Prepare surfaces, seams, walls, flashings, drains, and penetrations.
2. Install Insulation and G2 base sheet.
3. Spray apply WeatherWeld reinforced membrane.
4. Spray apply reflective acrylic coating system.
5. Install flashings and roof accessories.

Contact WeatherWeld representative for final inspection.

PREPARATION

- Prior to installation, ensure that adhesion testing was conducted in accordance with WeatherWeld adhesion testing procedures to verify a minimum adhesion strength of four (4) pounds per linear inch (pli) to the applicable substrates. When calculating material requirements for a particular project, consideration must be given to applicator variance and surface texture.
- Confirm local water run-off ordinances and restrictions prior to cleaning roof.
- Pressure wash all surfaces receiving WeatherWeld to remove all dust, dirt, debris and other foreign contaminants.
- If the roof surface becomes contaminated with dirt, dust, or other particles at any time during the application of the WeatherWeld system, cleaning measures must be taken to restore the surface to a suitable condition.
- Ensure roof is dry prior to application.

INSULATION INSTALLATION

- Install insulation in accordance with the insulation manufacturers requirements.
- Depending on deck type, insulation may be mechanically attached or adhered.
- Attach insulation with a fastening or adhesive pattern capable of achieving a 45 psf (FM 1-90) wind uplift rating.
- Enhance insulation attachment at perimeter and corner zones in accordance with ASCE 7-16.

BASE SHEET INSTALLATION

- Install mineral-surfaced cap sheet inverted, lapping 2” on side laps and 4” at end laps using approved fasteners.
- Install base sheet, lapping 2” on center and 4” at end laps using approved fasteners.
- Installation pattern must meet FM 1-90 wind uplift requirements.

WEATHERWELD SEAMLESS ROOFING APPLICATION

- Apply one layer of the composite roofing at the following ratio:
  1. Asphalt Emulsion: 30 gal. per 100 square feet (12.2 L/m2).
  2. Fiberglass Roving: 16 lb. per 100 square feet (0.78 Kg/m2).
- **DO NOT DILUTE**. No water or filler material may be added to the emulsion to thin or extend pot life.
- Fiberglass must be disbursed from the applicator in varying intertwined lengths, up to 24 inches (610mm).
- Thoroughly mix fiberglass and emulsion prior to application on roof surface.
- Loose strands must be brushed by hand, removed or filled with emulsion to create a solid surface.
- Upon completion, no area may be less than 250 mil dry film thickness (DFT).
- Install additional material at all roof flashings, 500 mils (DFT) of WeatherWeld composite installed, extending 24” in each direction prior to completion of the project.
- Areas where application exceeds 500 mils wet, such as base flashings and penetrations, brush by hand to prevent surface crazing.

REFLECTIVE COATING INSTALLATION

- Prior to coating application, wash the roof surface with water.
- Do not continue until all surfaces have thoroughly dried, confirmed by a reading of zero on a calibrated moisture meter.
  1. Acrylic Base Coating: Apply Base Coating at 1 1/2 gal. per 100 square feet (0.6 L/m2).
  2. Acrylic Top Coating: Apply Reflective Top Coating at 1 1/2 gal. per 100 square feet (0.6 L/m2).

or

  3. (Alternate) Aluminum Coating: Apply Reflective Coating at 2 gal. per 100 square feet (0.8 L/m2).

FLASHINGS

- All flashings must have 500 mills DFT of WeatherWeld Composite installed extending 24” in each direction.
- The following items are required to be in watertight condition for a WeatherWeld warranty to be issued for the project:
  1. Drains and Scuppers.
  2. Sheetmetal Copings and Counter-Flashings.
  3. Perimeter and Edge Flashings.
  4. Equipment Platforms and Sheetmetal Pans.
  5. Expansion Joints.
  6. Sheetmetal Ducts and Seals.
  7. Electrical Enclosures and Conduits.
  8. Transition Flashings.
  9. Any other item that may affect the watertightness of the Roof.

ROOF ACCESSORIES (INSTALLED AFTER COATING SYSTEM)

- Walkway Pads or Non-Slip Walking Surface
- Polymer Pipe Supports, Storm Collars on Pipes, Drain Rings and Screens
- Coping Caps and Flashings
- Access Hatches and Ladders

INSPECTION

- Inspect entire roof area and touch-up deficient areas with WeatherWeld or reflective coating as necessary to ensure complete and uniform coverage. Special attention should be given to critical areas of roof, including roof penetrations, transitions, existing membrane seams, flashings, and drains.

LIMITATIONS

- These are general guidelines for application of the WeatherWeld Seamless Roof System. The material requirements may vary depending on the specific job requirements. If unusual conditions exist, contact your local WeatherWeld Representative.
- WeatherWeld Seamless Roof Systems must be applied to structurally sound substrates and properly prepared surfaces. All surfaces must be clean and dry before application of coatings. WeatherWeld Seamless Roof Systems must not be applied over wet insulation or roofing materials. Failure of the substrate does not constitute failure of the WeatherWeld coating or system.
- WeatherWeld Seamless Roof Systems are designed for use on roofs with positive drainage.
  1. Do not begin when rain or other conditions such as fog or heavy dew are possible within a 48-hour period.
  2. Surfaces must be at least 6° F (3° C) above the dew point, and rising. Surfaces must be clean before application of product. Care must be taken to ensure that debris accumulation after original cleaning does not interfere with any stage of application. If either condition occurs, additional cleaning may be required.
  3. Drying time is affected by numerous factors, including temperature, direct sunlight, relative humidity, air movement, thickness, etc. Higher temperature and/or humidity will result in faster cure times. Lower temperature and/or humidity may extend cure times.
  4. Deviations from these application guidelines and specific material requirements may adversely affect the roofing system performance and are strictly prohibited.
  5. Applicator must comply with all applicable local, state, and federal regulations if asbestos, lead-based paint or other hazardous materials are encountered.

WEATHER RESTRICTIONS

- Do not attempt application if ice, snow, moisture, or dew is present. Ambient temperature must be 50°F (10°C) and rising through the day. Restrict application when overnight temperature drops below 40°F (4.4°C). Cooler temperatures will negatively impact the properties of the system. Contact your WeatherWeld Representative for proper cold weather applications.
- Do not attempt application if moisture or dew is present. Ambient temperature must be less than 110°F (43°C). Contact WeatherWeld Representative for proper hot weather application

STORAGE

- WeatherWeld should be stored in a shaded ventilated area under a tarp. Do not store in direct sunlight. Storage temperature must range from 60-80°F (15°C to 26°C). Indoor ventilated storage is recommended when ambient temperature is below 60°F (15°C) or above 80°F (26°C).

WARRANTY

- 40-year Warranty: a written leak free guarantee that covers against roof leaks for 40 years.
- Owner responsible for ensuring roof drains stay clear, and facilitating WeatherWeld roof inspections.

REQUIRED EQUIPMENT

- Graco 1017 roof pump with 500’ 1” SAE hydraulic hose.
- Towable air compressor
- 500 feet of 1/2 inch air hose.
- Emulsion tanker (delivered to jobsite).
- WeatherWeld 3D roof printer (rented from WeatherWeld on a per job basis).
- Pressure washer.
- Water hose and water source (enough length to wrap around building).
- Wet mil gauge.
- General Personal Protection Equipment (PPE).
- General carpentry, roofing and sheet metal tools.

WEATHERWELD

Div. Liquiform Technologies Inc.

40-YEAR NDL LEAK-FREE WARRANTY

COMPLETION DATE: _____ **ISSUE DATE:** _____

WARRANTY: Subject to warranty registration, payment in-full and installation in accordance with current printed installation specifications, Liquiform Technologies Inc., (WEATHERWELD) warranties to the original purchaser that the WEATHERWELD Seamless Reinforced Roof System (System) will be able to withstand ordinary wear of the natural elements in a leak-free condition for the period of forty (40) years, except for the exclusions, limitations and exceptions set forth in this Warranty. Upon proper notice, WEATHERWELD will diagnose and make repairs to the WEATHERWELD System at WEATHERWELD expense under the terms of this Warranty, as required to stop reported roof leakage found to be caused by defects in the WEATHERWELD System.

UNAPPROVED ALTERATIONS OR ADDITIONS: No contractor, distributor, consultant or any other person has authority to assume responsibility, liability or changes to WEATHERWELD specifications and/or agreements. WEATHERWELD shall not be responsible or liable for any change and/or amendment to the specifications and/or Warranty in regard to the project referenced herein, unless said change or amendment is approved in writing by WEATHERWELD.

RESPONSIBILITIES / EXCLUSIONS: The WEATHERWELD Seamless Reinforced Roof System is designed to keep areas to which the WEATHERWELD System Materials are applied in a leak-free condition. The System is not intended to take the place of any other building element such as, but not limited to, the underlying roof deck, base roofing structure, vapor retarder, drains, flashings, roof accessories, roof-mounted equipment, or any areas not covered with WEATHERWELD System Materials. This warranty shall not be applicable if, in the sole judgment of WEATHERWELD, any of the following occurrences shall be the cause of the reported claim of WEATHERWELD System roof leakage:

a) Natural disasters, earthquakes, lightning, hurricane force winds, hail, flood, environmental fallout, acts of vandalism or war.
b) Acts of negligence, misuse, accidents, falling objects, damage from roof top traffic or storage on the roof.
c) Damage caused by failure to conduct, or to have conducted, periodic maintenance inspections and roof clean-up as outlined in the WEATHERWELD maintenance manual for Owners.
d) Changes, alterations or repairs made to the System and not authorized by WEATHERWELD shall cause the area affected by the work to be excluded until authorized repairs meeting WEATHERWELD standards are completed.
e) Changes in aesthetics, thermal performance, reflectivity, or visual appearance of Roofing System materials.
f) With the exception of natural rainwater, accumulation of foreign materials or chemicals of any type including animal, plant, human, manufacturing or atmospheric.
g) Malfunction or breakdown of the base roofing structure other than System Materials.
h) Obstructed or inadequate roof drainage.
i) Waterproof defects in adjoining areas, flashings, walls, windows, roof-mounted equipment, ducts or other penetrations in the System extending above the flashings height of the WEATHERWELD System.

Both the examination and inspection of the WEATHERWELD System installation, plans and/or specifications by a WEATHERWELD employee, designated representative or Contractor, before or after the completion of the installation of the WEATHERWELD System, shall not constitute approval or waiver of the exclusions and conditions set forth in this Warranty, without written notice of such approval or waiver. No waiver by WEATHERWELD of any limitation, term or condition of this Warranty made as part of a warranty claim, shall operate as a waiver of any other limitation, term or condition applicable to this Warranty, on any other future claim, whether of similar or different nature. Owner agrees to provide, at Owner's expense, access to any areas requested in writing by WEATHERWELD and deemed to be relevant to the diagnosis and/or repair of the reported leak. Areas include, but are not limited to, building interior, exterior, adjoining areas and areas under roof-mounted equipment or other overburden.

REFLECTIVE COATINGS: WeatherWeld Reflective coatings are optional and may be installed for Energy Reflectivity and Building Code Compliance. WeatherWeld reflective coatings installed in the process of applying the WeatherWeld membrane are warranted for the first 12 years of the Leak Free NDL Warranty. Reflective coatings are not required, and do not require maintenance or re-coating for this Leak Free NDL warranty to remain in force.

NOTICE OF CLAIM: In the event a leak is discovered in the WEATHERWELD roof system, the Owner shall notify WEATHERWELD within ten (10) days of the discovery via receipt-acknowledged email or in writing at the contact's location listed below. Any claim to which notification is not made in a timely manner, without excuse, or to which access to the roof to diagnose the cause of the leakage is not provided, shall be deemed waived. Notification shall contain information of the location and severity of the leakage, access to the leak area and the personnel to contact. Notice to the Contractor, distributor or any other person does not substitute for notice to WEATHERWELD. Address written correspondence to: WeatherWeld – A Division of Liquiform Technologies Inc., 9757 7th St. #803, Rancho Cucamonga, CA 91730. Phone (888) 440-3224

SERVICE: Upon proper notification, WEATHERWELD shall schedule a diagnosis inspection of the leakage, prepare a written report of findings and commence repair of the defects that are WEATHERWELD's responsibility under this Warranty in a timely manner, weather and schedules permitting. Should the cause of the leakage be able to be corrected during the initial service call, the Owner agrees that WEATHERWELD is hereby granted permission to make such corrections, provided there is no cost to the Owner. Should leakage documented by WEATHERWELD be caused from items that are the upkeep responsibility of the Owner under this Warranty, the Owner agrees to have repairs made to such items in a timely manner, and before requesting any additional service work made by WEATHERWELD on the leakage claim. Should WEATHERWELD repeat the process without stopping the WEATHERWELD responsible leakage, WEATHERWELD shall retain a knowledgeable outside consultant at WEATHERWELD expense to help locate the source of the leakage. WEATHERWELD and the Owner agree to complete the respective repairs made in the Consultant's report. The Owner agrees that WEATHERWELD shall have exclusive control over the diagnosis and repair to any WEATHERWELD System component found to be WEATHERWELD responsibility under this Warranty.

LIMITATIONS OF LIABILITY: This Warranty is expressively in lieu of any other guarantees and/or warranties, expressed or implied, including any implied warranty of merchantability, or fitness for a particular purpose, and any other obligation or liability on the part of WEATHERWELD whether the claim against WEATHERWELD is based upon strict liability, negligence, breach of warranty, or any other theory or cause of action. This Warranty contains all of the provisions of your remedies from WEATHERWELD. In no event shall WEATHERWELD be liable for consequential or incidental damages of any kind, including damages to the building or its contents. This Warranty does not cover the cost of removal and/or replacement of any other building component, roof-mounted equipment, overburden or item excluded from Warranty coverage listed above. WEATHERWELD shall be discharged of all further obligations upon the occurrence of any of the following: (a) expiration of this warranty without written renewal or transfer, (b) damage to the System from causes listed in "EXCLUSIONS/RESPONSIBILITIES" or (c) failure to comply with any other sections of this Warranty. Unresolved Warranty claims shall be settled by binding arbitration in the State of California (as exclusive venue), administered by the American Arbitration Association under its Commercial Arbitration Rules, and judgment on any award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

SAMPLE

REGISTRATION

PROJECT NAME: _____

SPECIFICATION: _____

AREA DESCRIPTION: _____

_____

_____

AREA EXCLUDED: _____

_____

_____

DECK TYPE: _____

BUILDING USE: _____

ARCHITECT: _____

ADDRESS: _____

PHONE: _____ EMAIL: _____

CONTRACTOR: _____

ADDRESS: _____

PHONE: _____ EMAIL: _____

SIGNATURE: _____ DATE: _____

OWNER: _____

ADDRESS: _____

PHONE: _____ EMAIL: _____

SIGNATURE: _____ DATE: _____

LIQUIFORM TECHNOLOGIES INC (WEATHERWELD)

ADDRESS: 9757 7th Street #803, Rancho Cucamonga CA 91730

PHONE: (888) 440-3224 EMAIL: tech@weatherweld.com

SIGNATURE: _____ DATE: _____

SAMPLE