



REQUEST FOR PROPOSAL

Project Title: Cooley Laboratory Renovation
Location: Montana State University

PPA No.: 10-0023
RFP No.: 45
Date: 05/01/12

To: Dick Anderson Construction
4498 Jackrabbit Lane
Bozeman, MT 59718

Attention: Platisha

From: Cecilia Vaniman, Project Manager
Cooley Lab Renovation
Montana State University

Attention:

In order to expedite the Work and avoid or minimize delays in the Work the following proposal is requested. Please return a response by: 05/07/12 Date Sent: 05/01/12 Date Received:

RFP Waterproofing foundation @ Taylor Hall East Addition

Reference Drawings: C1.2

Reference Specifications: Carlisle Manufacturer installation requirements.

Provide waterproofing product @ concrete foundation/Brick intersect as depicted on the Attached information. Termination of product to be 6-8" above final grade extending a minimum of 24" below final grade.

Attachments: RFP45-01 -
Product data CCW MIRADRI 860/861 -
Detail MP-9B

This RFP is for pricing purposes only. The contractor shall not proceed with the scope of work described within until pricing is approved by the owner in writing.

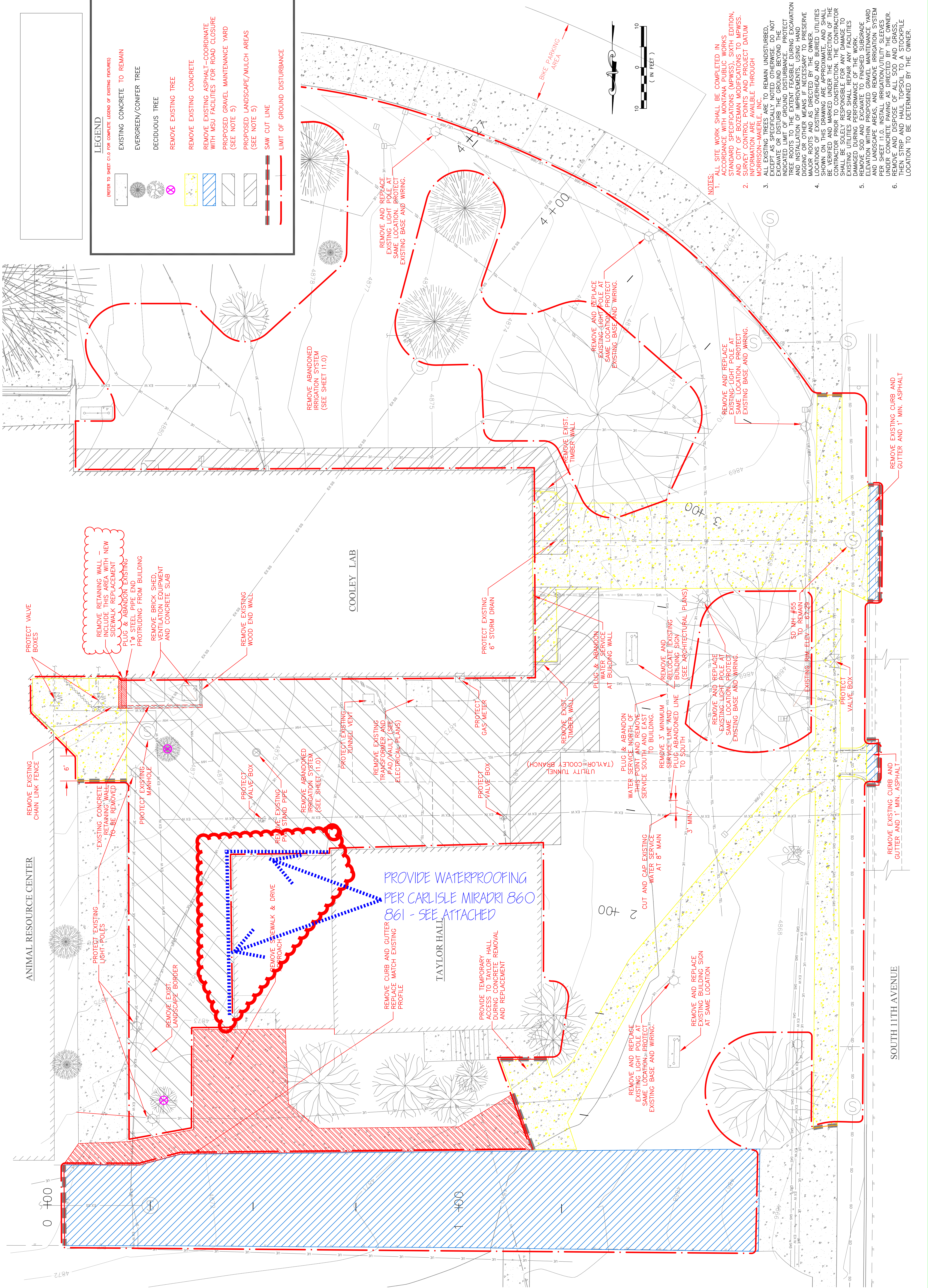
Distribution: [ ] Owner [ ] Architect [ ] Engineer
[ ] Agency [x] Contractor [ ] Other



DRAWN BY:	CHECKED BY:	DATE

REV. DESCRIPTION	DATE

**SITE DEMOLITION PLAN**  
 M.S.U. PPA 10-0023  
 ADG 10-029



**LEGEND**  
(REFER TO SHEET CI.0 FOR COMPLETE LEGEND OF EXISTING FEATURES)

	EXISTING CONCRETE TO REMAIN
	EVERGREEN/CONIFER TREE
	DECIDUOUS TREE
	REMOVE EXISTING TREE
	REMOVE EXISTING CONCRETE
	REMOVE EXISTING ASPHALT-COORDINATE WITH MSU FACILITIES FOR ROAD CLOSURE
	PROPOSED GRAVEL MAINTENANCE YARD (SEE NOTE 5)
	PROPOSED LANDSCAPE/MULCH AREAS (SEE NOTE 5)
	SAW CUT LINE
	LIMIT OF GROUND DISTURBANCE

- NOTES:**
- ALL SITE WORK SHALL BE COMPLETED IN ACCORDANCE WITH MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (MPWSS), SIXTH EDITION, AND CITY OF BOZEMAN MODIFICATIONS TO MPWSS. SURVEY CONTROL POINTS AND PROJECT DATUM INFORMATION ARE AVAILABLE THROUGH MORRISON-MARLER, INC.
  - EXISTING UTILITIES SHALL REMAIN UNDISTURBED, EXCEPT SPECIFICALLY NOTED OTHERWISE. DO NOT EXCAVATE OR DISTURB THE GROUND BEYOND THE INDICATED LIMIT OF GROUND DISTURBANCE. PROTECT TREE ROOTS TO THE EXTENT FEASIBLE DURING EXCAVATION AND INSTALLATION OF IMPROVEMENTS. USING HAND DIGGING METHODS TO VERIFY THE LOCATION OF ALL MAJOR ROOTS AND AS DIRECTED BY THE OWNER. LOCATIONS OF EXISTING OVERHEAD AND BURIED UTILITIES SHOWN ON THIS DRAWING ARE APPROXIMATE, AND SHALL BE VERIFIED AND MARKED UNDER THE DIRECTION OF THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND EXISTING UTILITIES AND SHALL REPAIR ANY FACILITIES DAMAGED DURING PERFORMANCE OF THE WORK.
  - REMOVE SOD AND EXCAVATE TO FINISHED SUBGRADE ELEVATION WITHIN PROPOSED GRAVEL MAINTENANCE YARD AND LANDSCAPE AREAS, AND REMOVE IRRIGATION SYSTEM UNDER CONCRETE. IRRIGATION SYSTEM SHALL BE REMOVED AND DISPOSE OF ALL SOD AND GRASS. THEN STRIP AND HAUL TOPSOIL TO A STOCKPILE. LOCATION TO BE DETERMINED BY THE OWNER.

PROVIDE WATERPROOFING  
 PER CARLISLE MRADRI 860  
 861 - SEE ATTACHED

Waterproofing Membranes • Drainage Composites • Deck Coatings • Air & Vapor Barriers

**COMPLETE WATERPROOFING ONE COMPANY**

CCW provides a complete line of waterproofing solutions and the expertise to help you select the one that is best for your project.



CCW Deck Coatings



Barricoat®-5



CCW MiraDRIP® 860/861



CCW MiraCLAY®



CCW MiraDRAIN®



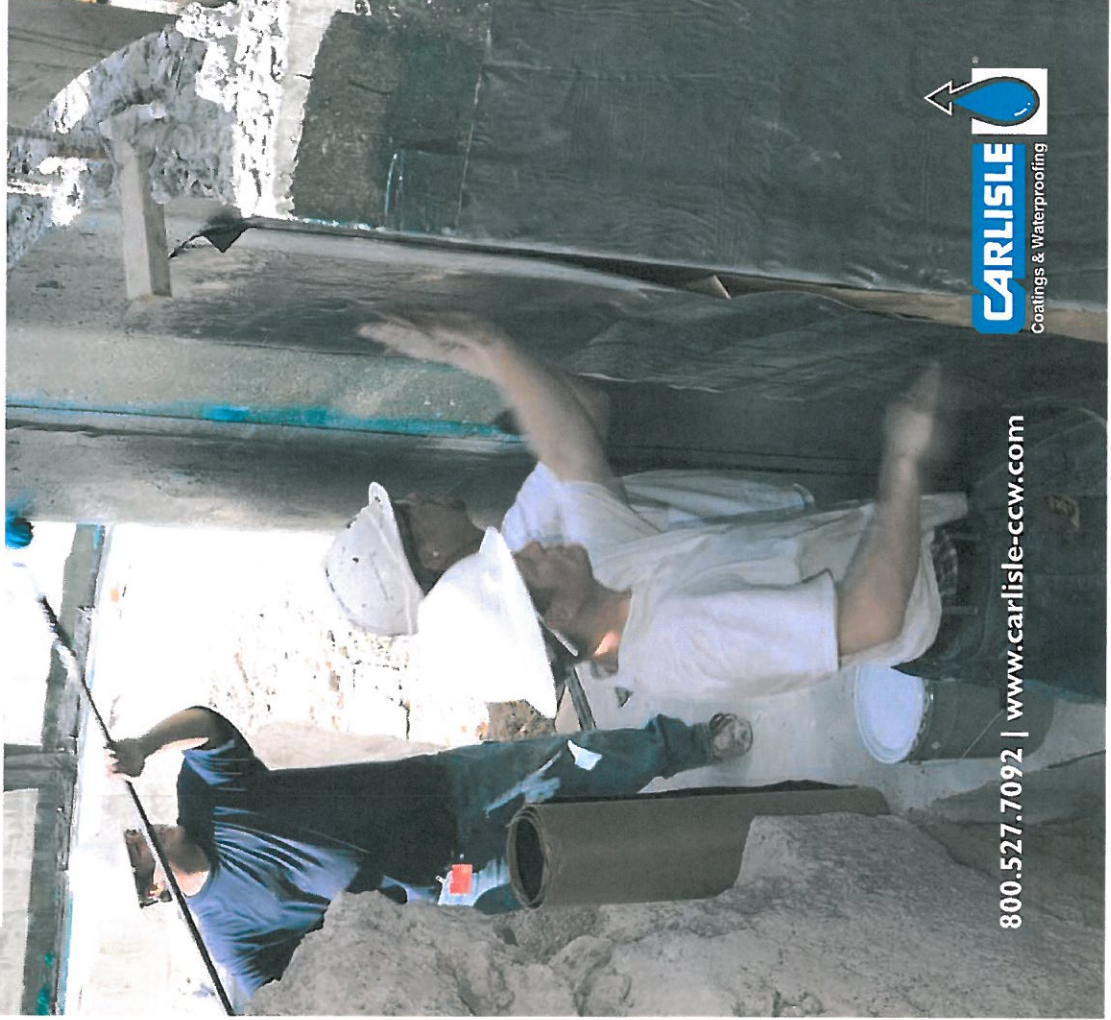
Air & Vapor Barrier Systems



CCW 525

**CCW MIRADRI 860/861**  
Self-Adhering Sheet-Applied Waterproofing Membrane

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**LIMITED WARRANTY**

Carlisle Coatings & 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 materials or refund its 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.

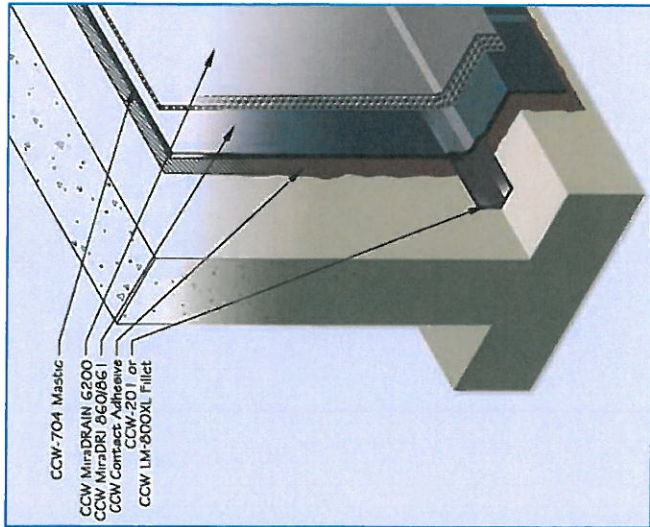
The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.



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# CCW MiraDRI 860/861 Self Adhering Sheet Applied Waterproofing Membrane



Carlisle Coatings & Waterproofing, Inc. (CCW) provides a broad range of solutions to meet specific waterproofing needs. CCW offers technical services, research & development and manufacturing capabilities from its headquarters in Wylie, Texas and three additional manufacturing facilities in Terrell, TX; Elberton, GA; and Carlisle, PA. The CCW network is further supported by over 50 manufacturer's sales representatives directed by regional sales offices throughout the country. CCW offers a complete line of waterproofing and moisture protection products for the architectural, general construction, industrial and maintenance industries. Carlisle Coatings & Waterproofing, Inc., is part of the SynTec Division of Carlisle Companies, Inc., which is a publicly traded company on the NYSE.

Protection from the damaging effects of water can be achieved quickly and easily with

## FEATURES AND BENEFITS

- Fully-Adhered Membrane: Eliminates Water Migration Which Can Otherwise Cause Leakage Through Cracks
- Factory Controlled Thickness: Eliminates Thin Spots Which Could Be Easily Penetrated, Allowing Leakage
- Preformed Sheet: Eliminates Pinholing
- Flexibility Over Cracks: Elastomeric Properties Accommodate Normal Expansion and Contraction of the Substrate
- Resists Hydrostatic Pressure
- Mechanically Strong
- Easy to Apply
- Cost-Competitive: The Highest Performance System with the Best Life Cycle Cost
- The CCW MiraDRI/MiraDRAIN Systems Guarantee: A Safe Waterproofing Choice from a Reliable Company Backed by a Combined CCW Systems Warranty

## TECHNICAL DATA

Property	Test Method	Typical Value
Color	—	Dark Gray
Tensile (Membrane)	ASTM D412	325 psi
Tensile (Film)	ASTM D882	5,000 psi
Elongation	ASTM D412	350%
Permeance	ASTM E96	0.05 perms
Low Temp. Flexibility (100 Cycles)	ASTM D1970	Unaffected, @ 45°F Cracking Cycle*
Peel Strength	ASTM C836	Unaffected @ -25°F
Lap Adhesion	ASTM D903	10 lb/in
Puncture Resistance	ASTM D1876	19.0 lb/in
Soil Burial	ASTM E154	60 lb min
H <sub>2</sub> O Absorption	GSA-PBS 07121	16 wks, no effect
Hydrostatic Head	ASTM D570	0.1% by wt
	ASTM D751	230 ft

\* 180° bend over a 1" (25mm) mandrel at -45°F (-43°C)

## INSTALLATION GUIDELINES

CCW MiraDRI 860 Membrane is used for applications where surface temperatures are 40°F (4.4°C) and above. CCW MiraDRI 861 is specially formulated for applications with cooler surface temperatures down to 25°F (-3.9°C). CCW MiraDRI membranes should not be applied in temperatures below 25°F (-3.9°C).

**Substrate Preparation:** CCW MiraDRI 860/861 can be applied to concrete, metal, wood, insulated wall systems or masonry surfaces. All substrates must be clean, dry and free of surface irregularities.

**Concrete Substrates:** Structural concrete must be cured a minimum of seven days and lightweight structural concrete must cure a minimum of 14 days before the application of CCW MiraDRI 860/861. Repair surfaces that are not structurally sound, have voids, protrusions, rough spalled areas, loose aggregate or exposed coarse aggregate. Void areas should be filled with latex Portland cement, concrete or epoxy concrete and troweled smooth to match the existing surface. Protrusions and other rough areas should be broken off and patched as above. CCW LM-800XL or CCW-201 may be used to fill small voids, honeycombs or bug holes.

**Masonry Substrate:** Rough masonry may require the surface to be prepared with a plaster coat of cementitious material to form a well-adhered, smooth and uniform finish.

Allow the parge coat to dry before priming and installing the CCW MiraDRI 860/861 waterproofing membrane.

**Priming:** CCW Primers can be spray or roller-applied at an approximate rate of 250-600 ft<sup>2</sup> (23-56 m<sup>2</sup>). Primer should be allowed to dry for at least 30 minutes, depending on product selection and climatic conditions. Prime only the areas which will be covered by the membrane in the same day.

**Membrane Application:** Start membrane application by removing the release paper. Begin applying the membrane, beginning at the low point and working toward the high point. Side laps should be 2 1/2" (6.3 cm) minimum and end laps should be 5" (12.7 cm) minimum. The membrane should be rolled immediately after its placement to ensure full adhesion to the primed surface. A minimum 3/4" (1.9 cm) fillet should be applied at junction of footing and foundation wall. Double coverage should be used on all inside and outside corners using a nine inch (22.9 cm) strip of CCW MiraDRI membrane. All joints, drains, penetrations and protrusions should also receive double coverage. All terminations of the membrane should receive a troweled bead of CCW-704 Mastic.

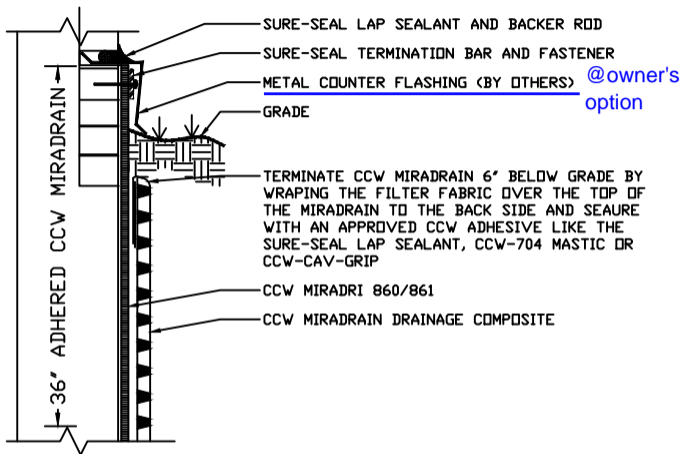
**Membrane Protection:** CCW MiraDRAIN Drainage Composites, CCW Protection Boards or CCW Protection Fabric should be applied at the end of each day's work to avoid damage caused by other

trades, construction materials or backfill. For more information on installation guidelines, refer to the Manufacturer's Guide Specification or contact your local CCW representative.

## STANDARDS, TESTS, CERTIFICATES

- Federal Construction Guide Specification FCGS 07111
- Veterans Administration H-08-1 Section 07113
- General Services Administration PBS 07115
- GSA: PBS PCD 07121
- UL 790, Class A





MP-9B

EXPOSED TERMINATION

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