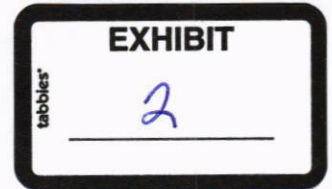


*Agreement Between Owner and Contractor for
Stipulated Sum*



Agreement made as of the 4th day of January, 2017

Between the Owner:

*Hopkins County Texas
118 Church Street
Sulphur Springs, Texas 75482-2602*

And the Contractor:

*H B Greenstar
12015 Shiloh Road Suite 158
Dallas, Texas 75228*

For the following Project:

*Hopkins County Courthouse Storm Damage Roof Repair
118 Church Street
Sulphur Springs, Texas 75482-2602*

Replacement and Repair of Storm Damaged Roofs

Consultant- Owners Representative:

*CRW Associates, Inc.
3878 County Road 4772
Sulphur Springs, Texas 75482*

The Owner and Contractor agree as follows.

The Contract Documents consist of this Agreement, Drawings, Manufacturers Specifications and Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement, all of which form the Contract. The Contract represents the entire agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

The date of commencement of the Work shall be the date fixed in a notice to proceed issued by the Owner. The Contract Time shall be measured from the date of commencement.

The Contractor shall achieve Substantial Completion of the entire Work not later than 90 work days from the date of commencement, subject to adjustments of this Contract Time as provided in the Contract Documents. (*Bad Weather days and days required by Owner for unforeseen instances shall not be counted as work days and must be approved by Owners Representative.*)

Should satisfactory completion of the Work not be completed within this time, liquidated damages in the amount of four hundred (\$400) dollars per calendar day will be assessed and applied against the payment of invoices.

The Contract Sum shall be:

Roof Renovation Base Bid: Remove Existing Clay Tile and Underlayment, install new Grace Ice and Water Shield Underlayment and Re-Install Clay Tile. Damaged or Cracked Clay Tile shall be replaced with new. Contractor shall be responsible for any breakage of existing good Clay Tile during storage and re-installation.
Remove Existing Synthetic Slate Tile and Underlayment, install new Grace Ice and Water Shield Underlayment and Greenstone Imperial Blend 12 inch Vermont Slate in accordance with Specifications. Include new Copper Valley Metal and Step Flashing. Reglet sealant to be removed and replace with new.

SIX HUNDRED TWO THOUSAND, DOLLARS AND NO/CENTS
(\$602,000.00)

Removal of one hundred (100) linear feet of Copper Surface Mounted Counter Flashing and replace with new:

TWO THOUSAND, TWO HUNDRED DOLLARS AND NO/CENTS
(\$ 2,200.00)

Unit Price:

Additional Copper Counter Flashing replacement if needed and approved by Owners Representative:

TWENTY-TWO DOLLARS AND TWENTY-FIVE CENTS
(\$ 22.25) per linear foot.

Replacement of any Damaged Wood Decking:

THREE DOLLARS AND NO/CENTS
(\$ 3.00) per linear foot.

Additional Work Fees:

Contractor agrees to furnish all labor and materials for any additional work ordered by the Owner which is provided by the Contractor's own forces (and to which no pre-agreed price has been fixed) for the net cost of such labor and materials plus 25 percent for overhead and profit. Thorough documentation shall be required of all materials and labor charges.

Contractor agrees to supervise and coordinate changes in work of the subcontractor(s) for a fee of 10 percent of the net cost of such labor and materials due the subcontractor. Thorough documentation shall be required of all materials and labor charges.

Contractor agrees to supervise and coordinate changes in work of any electrical work in connection with exterior lighting for a fee of 5 percent of the net cost of such labor and materials due the subcontractor. Thorough documentation shall be required of all materials and labor charges.

Progress Payments:

Progress Payments shall be submitted to the Owners Representative by the Tuesday before Commissioners Court held on the second and fourth Monday of each month.

Progress Payments shall be:

Commencement of Work and delivery of Materials:	<i>Thirty Percent (30%)</i>
Sixty-Five percent completion of work:	<i>Thirty Percent (30%)</i>
Eighty-Five percent completion of work:	<i>Twenty Percent (20%)</i>
Completion of Work:	<i>Twenty Percent (20%)</i>
Retainage held from each Payment:	<i>Ten Percent (10%)</i>

Retainage to be Paid upon final inspection and delivery of any and all Warranties applicable.

Additional documents forming part of the Contract Documents:

Specifications and Drawings.
Including but not limited to Manufacturers Specifications and Requirements.

Contractor's Representative:

Jacob Horn - Owner
H B Greenstar
12015 Shiloh Road Suite 158
Dallas, Texas 75228

Neither the Owner's nor the Contractor's Representative shall be changed without ten (10) days notice to the other party.

The Contractor shall provide required insurance certificates and maintain said insurance during the course of all the Work.

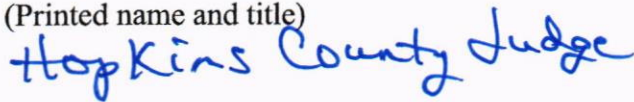
This Agreement entered into as of the day and year first written above.



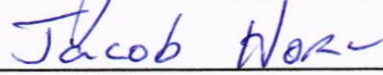
OWNER (Signature)



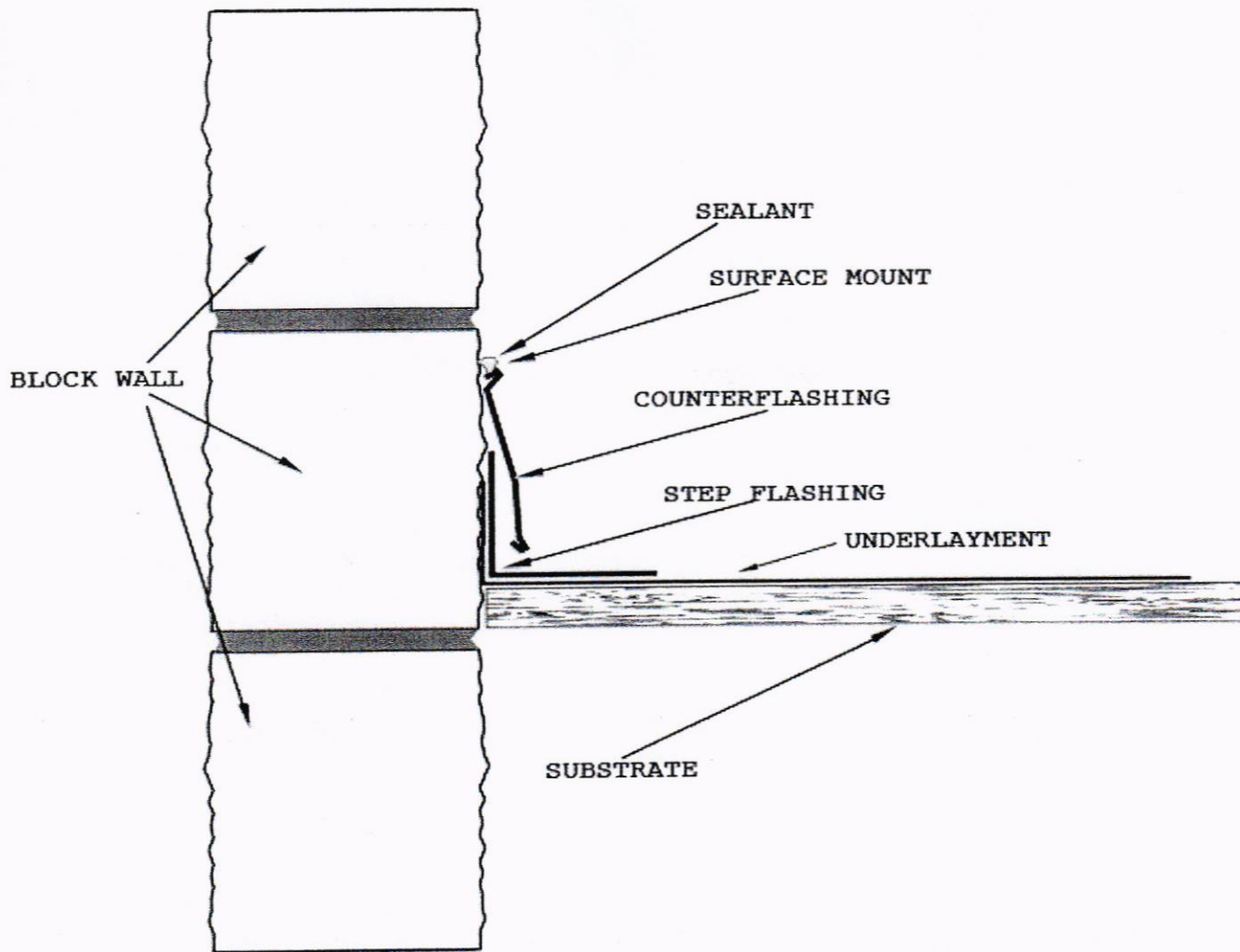
(Printed name and title)



CONTRACTOR (Signature)



(Printed name and title)



<h1>CRW Associates</h1>			REVISIONS	BY
DRAWN BY BD		DATE 11-02-16		
CHECKED BY TCG		SCALE NTS	JOB NUMBER	
CURTAINWALL, ROOFING, AND WATERPROOFING CONSULTANTS			DRAWING NUMBER D-01	

SECTION 07315

SLATE 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. Slate Shingles
2. Underlayment
3. Metal flashings required for a watertight slate shingle roof installation
4. Fasteners

1.3 DEFINITIONS

- A. Roofing Terminology: *Refer* to ASTM 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: Include slate properties, construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of slate indicated.
- B. Shop Drawings: Include sections at hips, gables, ridges, valleys and eaves; component details; accessories; and attachments for other work.
- C. Samples for Submittal: Manufacturer's color charts consisting of units for sections of units showing the full range of colors, textures, shape and size specified, showing the full range of variations expected. Prepare samples from the same material to be used for the work.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each color of slate from single quarry capable of producing slate of consistent quality in appearance and physical properties.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver slate shingles to Project site and store as close as possible to the point of installation to minimize damage while handling.
- B. Store and handle roofing materials to prevent breakage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Greenstone Slate Company, 325 Upper Road, Poultney, VT
(802) 287-4333

2.2 SLATE

- A. Slate Shingles: C406-89, Grade S1; hard, dense, and sound; chamfered edges, with nail holes machine punched or drilled and countersunk. No broken or cracked slates, no broken exposed corners exceeding 1 1/2", and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof.

1. Thickness of Slate:

A.	1/4" Standard Grade-Selects	680-780 lbs/sq
B.	Texture	1/4" to 3/8" Standard - Rough 800-1000 lbs/sq
C.	3/8" to 1/2" Thickness - Architectural	1200- lbs/sq
D.	1/2" to 3/4" Thickness - Heavy Grade	1800-2200 lbs/sq
E.	3/4" to 1" Thickness - Estate Grade	2500-3000 lbs/sq

4. Color of slate shall be Greenstone:

- A. Vermont Imperial Blend

2. Size:

A.	Length of Slate To Be	<u>12</u>	"
B.	Width of Slate To Be	<u>10</u>	"

2.3 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: Copper

- 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.

2.4 UNDERLAYMENTS

- A. One layer of Grace Ice and Water Shield over entire roof deck

2.5 FASTENERS

- A. Provide 10 gauge solid copper slaters nails. Length (formula=thickness x 2 + 1")

2.6 Elastomeric Sealant

- A. ASTM C920 elastomeric polyurethane, polymer sealant; of Type, Grade, Class and Use classifications, required to seal joints in slate shingle roofing and remain watertight. Where sealant will be exposed, provide in color matching shingle.

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 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 roofing.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 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".
- B. Install metal flashings according to recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual".
- C. Apron Flashing: Extend lower flange over and beyond each side of down slope slate shingles and up the vertical surface.
- D. Step Flashings: Install with a 3-inch head lap extending over the underlying slates and up the vertical surface. Install with lower edge of flashing just upslope of and concealed by, butt of overlying slate shingle. Fasten to roof deck only.
- E. Cricket Flashings: Install against the roof penetrating element, extending concealed flange beneath upslope slate shingles and beyond each side.
- F. Hip Flashings: Install centrally over hip with lower edge of flashing concealed by butt of overlying slate shingle. Fasten to roof deck.
- G. 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.
- H. Rake Drip Edges: Install over underlayment and fasten to roof deck.
- I. Eave Drip Edges: Install beneath underlayment and fasten to roof deck.

3.4 SLATE-SHINGLE INSTALLATION

A. Installation, General: Beginning at eaves, install slate shingles according to written recommendations of Greenstone Slate and details and recommendations in NRCA's "The NRCA Roofing And Waterproofing Manual".

1. Install shingle starter course chamfered edge down.

B. Install first and remaining shingle courses with chamfered face up. Install full width first course at rake edge.

1. Offset joint of (random width slate) (uniform width slate) a minimum of 3 inches in succeeding courses.

C. Maintain a 3-inch minimum head lap between succeeding shingle courses.

D. Extend shingle starter course and first course 2 inches over facial at eaves.

E. Extend shingle starter course and succeeding courses 1 inch over rake edge.

F. Cut and fit slate neatly around projections through roof.

G. Hang slate with two fasteners for each shingle with fasteners lightly touching slate. Do not drive fasteners home drawing slates downward or leave fastener head protruding enough to interfere with overlapping shingle above.

H. Hips:

1. Mitered Hip
2. Saddle Hip
3. Boston Hip
4. Fantail Hip
5. Copper

I. Ridges:

1. Saddle Ridge
2. Strip Saddle Ridge
3. Comb Ridge
4. Copper Ridge

J. Valleys:

1. Open Valleys
2. Closed Valleys
3. Round Valleys
4. Canoe Valleys

Cut slate shingles to form straight lines at open valleys, trimming upper concealed comers of shingles. Maintain uniform width of exposed open valley from highest to lowest point.

1. Do not nail shingles to valley metal flashings.

3.5 ADJUSTING AND CLEANING

- A. Remove and replace damaged or broken slates.
- B. Remove excess slate and debris from project site.

3.6

- A. The Consultant/Owners Representative shall *perform* a final inspection of work and supply Contractor with Punch List if necessary. All punch list items shall be completed prior to approval by Consultant/Owners Representative for final payment.

COMPANY NAME HB Greenstar

PROPOSAL

Project: HOPKINS COUNTY COURTHOUSE ROOF
RENOVATION
118 Church Street
Sulphur Springs, Texas 75482-2602

Owner: HOPKINS COUNTY TEXAS
118 Church Street
Sulphur Springs, Texas 75482-2602

Bid to: JUDGE ROBERT NEWSOM
County Judge
118 Church Street
Sulphur Springs, Texas 75482-2602

Construction Management: C R W ASSOCIATES, INC
3878 CR 4772
Sulphur Springs, Texas 75482

Gentlemen:

Having carefully examined the General Conditions, Supplementary Conditions, Drawings and Specifications for the project referenced above, and having visited the site, and having examined all conditions affecting operations, the undersigned proposes to furnish all materials, taxes, insurance, permits, incidentals, labor and equipment required to complete the Work, as follows:

C R W Associates, Inc.

COMPANY NAME HB Greenstar

1. GENERAL:

1.1. All Bids, Alternates and unit prices will include the total cost of labor, equipment, materials, taxes, insurance, permits and incidentals required to perform the specified Work on Hopkins County Courthouse in strict accordance with the project specifications, as well as manufacturer's requirements and recommendations to provide a waterproof assembly. Moving and temporary on-site storage of existing landscaping shall also be included in project requirements if required to perform specified work. Should contractor damage or destroy any landscaping, interior or exterior surfaces and/or furniture, equipment, as well as any other property of the complex, affected materials shall be replaced to match existing at the Contractor's expense.

2. Roof Renovation Base Bid:

2.1. Furnish all labor, equipment, materials and incidentals required to remove existing Synthetic Slate Tile roofing and underlayment assembly and install new Grace Ice and Water Shield underlayment and Greenstone Imperial Blend 12 inch Vermont Slate(or equal) in accordance with Specifications. Include new Copper Valley and Step Flashing. Remove all Clay Tile and underlayment and install new Grace Ice and Water Shield underlayment. Re-install Clay Tile over new underlayment. Damaged or Cracked Clay Tile shall be replaced with new like kind. Contractor shall be responsible for storing Clay Tile and any damage due to such storage. All necessary temporary waterproofing shall be installed during renovation to insure that interiors remain dry. Work shall also include replacement of surface mounted copper counter flashing that is not set in a reglet, sealant at all reglets shall be removed and resealed with Dow 795 sealant.

2.1.1. Price: \$ 604,200.00

Six hundred four thousand two hundred dollars 00 cents.

4. UNIT PRICES:

NOTE: All claims for unit price work shall be subject to verification and approval by the Owner's authorized representative. Unit prices shall be used to increase project scope.

COMPANY NAME HB Greenstar

4.1. Unit Price:

4.1.1. Contractor shall furnish all labor, equipment, materials and incidentals as required to remove and replace any damaged wood decking.

4.1.1.1. Price per linear foot: \$ 6.50
Six dollar dollars 50 cents.

4.1.2 Contractor shall furnish all labor, equipment, materials and incidentals as required to remove and replace any damaged Copper Flashing.

4.1.2.1. Price per linear foot: \$ 22.00
Twenty Two dollar dollars 0 cents.

5. ADDITIONAL WORK FEES:

5.1. The undersigned Contractor agrees to furnish all labor and materials for any additional work ordered by the Owner which is provided by the Contractor's own forces (and to which no pre-agreed price has been fixed) for the net cost of such labor and materials plus 25 percent for overhead and profit. Thorough documentation shall be required of all material and labor charges.

5.2. The undersigned Contractor agrees to supervise and coordinate changes in work of the subcontractor(s) for a fee of 10 percent of the net cost of such labor and materials due the subcontractor. Thorough documentation shall be required of all materials and labor charges.

6. PERFORMANCE BOND:

6.1. The undersigned Contractor agrees to furnish a Performance Bond for the entire Bid amount for the sum of 3 percent of Contract sum.

7. ACCEPTANCE:

7.1. The contractor agrees to hold prices firm for sixty (60) days from the date of the Bid. Owner reserves the right to accept or reject this proposal for a period of sixty (60) days from the Bid Due Date. Further, within five (5) calendar days after receipt of the prescribed forms, the Contractor agrees to execute the contract documents with the Owner and deliver any evidence of insurance as required by Owner. The undersigned Contractor understands that Owner shall require submission of complete list of subcontractors prior to execution of the contract documents.

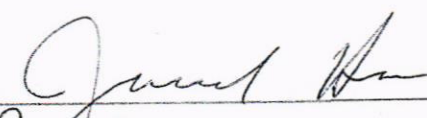
COMPANY NAME HB Greenstar

10. COMMENCEMENT OF WORK:

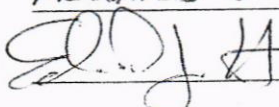
10.1. Should the Undersigned be notified of the acceptance of this proposal, the Undersigned agrees to mobilize to commence work within 15 calendar days after the awarding of the Contract.

11. INSURANCE:

11.1 Furnish Owner with General Liability Insurance in the amount of \$ 2,000,000.00

Signed  Date 12 29 - 2016
Title President Telephone 214 876 2644

Print in Ink or Type

Name Jacob Horn
Company HB Greenstar
Address 12015 Shiloh Rd #158
City, State, Zip Dallas Texas 75228
Witness Edward J. Horn
Witness Signature 
Contractor License Number (if applicable) R0101245

COMPANY NAME HB Greenstar

8. DISCLOSURES:

8.1. In preparing the proposal form, Bidders are required to list below major subcontractors whose prices are incorporated within the Bid. Generally, trades listed should be those involving major money amounts or special technical items.

TRADE	SUB CONTRACTOR

9. COMPLETION OF WORK:

9.1. Should the Undersigned be notified of the acceptance of this proposal, the Undersigned agrees to execute a contract for the above mentioned work in compliance to the Bid Documents and this Proposal Form. The Undersigned further agrees to guarantee completion of all Base Bid One Work within 90 calendar days after commencement of work. Should satisfactory completion of work not be completed within this time, liquidated damages in the amount of four hundred (\$400.00) dollars per calendar day will be assessed and applied against the payment of invoices. Reasonable extensions of time may be granted when requested in writing in a timely manner .

SECTION 07315

SLATE 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. Slate Shingles
2. Underlayment
3. Metal flashings required for a watertight slate shingle roof installation
4. Fasteners

1.3 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM 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: Include slate properties, construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of slate indicated.
- B. Shop Drawings: Include sections at hips, gables, ridges, valleys and eaves; component details; accessories; and attachments for other work.
- C. Samples for Submittal: Manufacturer's color charts consisting of units for sections of units showing the full range of colors, textures, shape and size specified, showing the full range of variations expected. Prepare samples from the same material to be used for the work.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each color of slate from single quarry capable of producing slate of consistent quality in appearance and physical properties.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver slate shingles to Project site and store as close as possible to the point of installation to minimize damage while handling.
- B. Store and handle roofing materials to prevent breakage.

JH.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Greenstone Slate Company, 325 Upper Road, Poultney, VT
(802) 287-4333

2.2 SLATE

A. Slate Shingles: C406-89, Grade S1; hard, dense, and sound; chamfered edges, with nail holes machine punched or drilled and countersunk. No broken or cracked slates, no broken exposed corners exceeding 1 1/2", and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof.

1. Thickness of Slate:

A.	1/4" Standard Grade-Selects	680-780 lbs/sq
B.	Texture	1/4" to 3/8" Standard - Rough 800-1000 lbs/sq
C.	3/8" to 1/2' Thickness - Architectural	1200- lbs/sq
D.	1/2" to 3/4" Thickness - Heavy Grade	1800-2200 lbs/sq
E.	3/4" to 1" Thickness - Estate Grade	2500-3000 lbs/sq

4. Color of slate shall be Greenstone:

- A. Vermont Imperial Blend

2. Size:

A.	Length of Slate To Be	<u>12</u>	"
B.	Width of Slate To Be	<u>10</u>	"

2.3 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: Copper

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.

2.4 UNDERLAYMENTS

A. One layer of Grace Ice and Water Shield over entire roof deck

2.5 FASTENERS

A. Provide 10 gauge solid copper slaters nails. Length (formula=thickness x 2 + 1")

JH

2.6 Elastomeric Sealant

- A. ASTM C920 elastomeric polyurethane, polymer sealant; of Type, Grade, Class and Use classifications required to seal joints in slate shingle roofing and remain watertight. Where sealant will be exposed, provide in color matching shingle.

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 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 roofing.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 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".
- B. Install metal flashings according to recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual".
- C. Apron Flashing: Extend lower flange over and beyond each side of down slope slate shingles and up the vertical surface.
- D. Step Flashings: Install with a 3-inch head lap extending over the underlying slates and up the vertical surface. Install with lower edge of flashing just upslope of and concealed by, butt of overlying slate shingle. Fasten to roof deck only.
- E. Cricket Flashings: Install against the roof penetrating element, extending concealed flange beneath upslope slate shingles and beyond each side.
- F. Hip Flashings: Install centrally over hip with lower edge of flashing concealed by butt of overlying slate shingle. Fasten to roof deck.
- G. 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.
- H. Rake Drip Edges: Install over underlayment and fasten to roof deck.
- I. Eave Drip Edges: Install beneath underlayment and fasten to roof deck.

J.A.

3.4 SLATE-SHINGLE INSTALLATION

A. Installation, General: Beginning at eaves, install slate shingles according to written recommendations of Greenstone Slate and details and recommendations in NRCA's "The NRCA Roofing And Waterproofing Manual".

1. Install shingle starter course chamfered edge down.

B. Install first and remaining shingle courses with chamfered face up. Install full width first course at rake edge.

1. Offset joint of (random width slate) (uniform width slate) a minimum of 3 inches in succeeding courses.

C. Maintain a 3-inch minimum head lap between succeeding shingle courses.

D. Extend shingle starter course and first course 2 inches over facial at eaves.

E. Extend shingle starter course and succeeding courses 1 inch over rake edge.

F. Cut and fit slate neatly around projections through roof.

G. Hang slate with two fasteners for each shingle with fasteners lightly touching slate. Do not drive fasteners home drawing slates downward or leave fastener head protruding enough to interfere with overlapping shingle above.

H. Hips:

1. Mitered Hip

2. Saddle Hip

3. Boston Hip

4. Fantail Hip

5. Copper

I. Ridges:

1. Saddle Ridge

2. Strip Saddle Ridge

3. Comb Ridge

4. Copper Ridge

J. Valleys:

1. Open Valleys

2. Closed Valleys

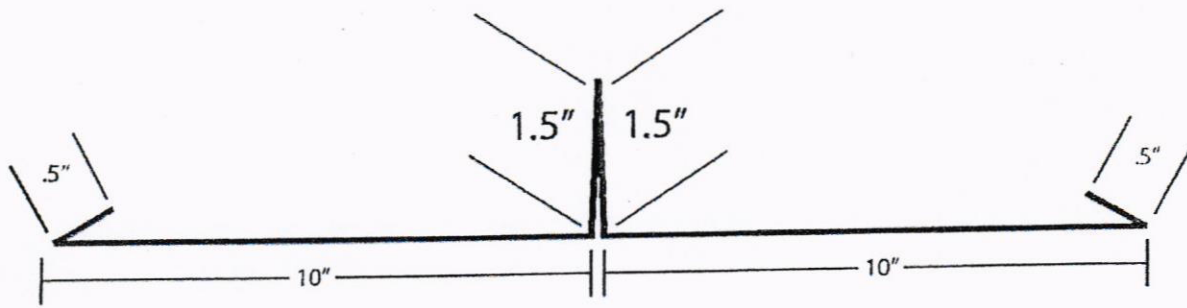
3. Round Valleys

4. Canoe Valleys

Cut slate shingles to form straight lines at open valleys, trimming upper concealed comers of shingles. Maintain uniform width of exposed open valley from highest to lowest point.

1. Do not nail shingles to valley metal flashings.

J.H.

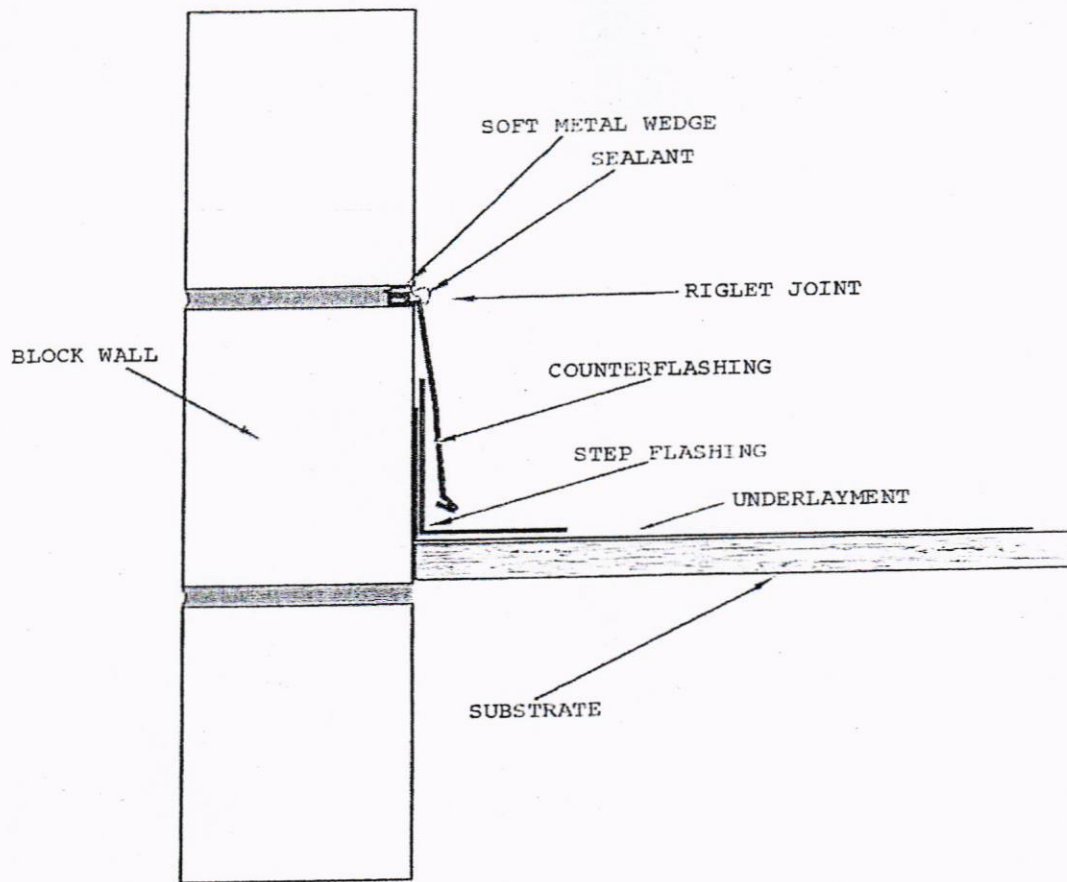


COPPER VALLEY METAL DETAIL

**CRW
Associates**

		REVISIONS	BY
DRAWN BY	BD	DATE	11-02-16
CHECKED BY	TCG	SCALE	NTS
CURTAINWALL, ROOFING, AND WATERPROOFING CONSULTANTS		JOB NUMBER	
		DRAWING NUMBER D-03	

J.H.

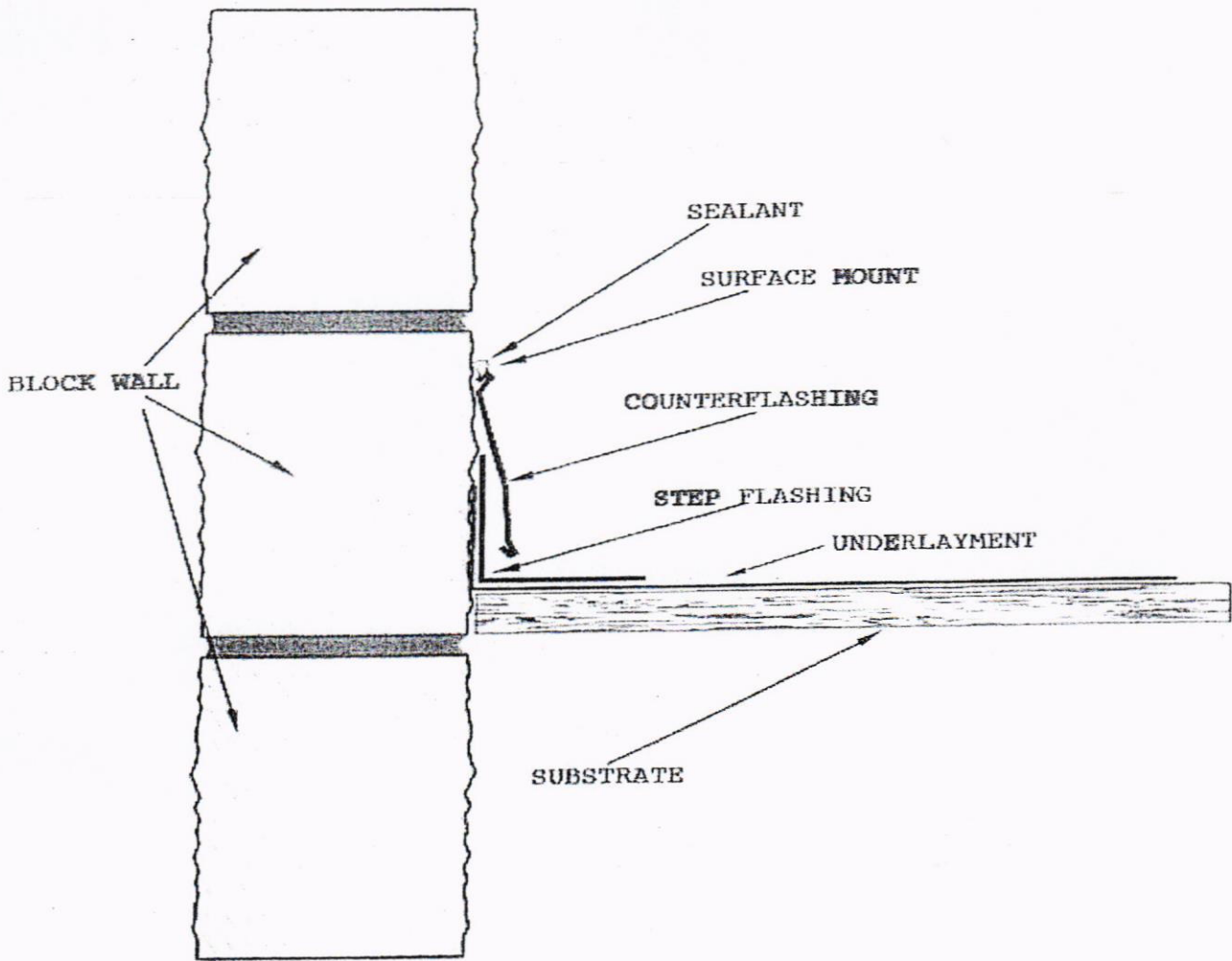


**CRW
Associates**

REGLET COUNTER FLASHING DETAIL

		REVISIONS	BY
DRAWN BY	BD	DATE	11-02-16
CHECKED BY	TCG	SCALE	NTS
CURTAINWALL, ROOFING, AND WATERPROOFING CONSULTANTS		JOB NUMBER	
		DRAWING NUMBER	D-02

JH.



<h1>CRW Associates</h1>			REVISIONS	BY
	DRAWN BY BD	DATE 11-02-16		
	CHECKED BY TCG	SCALE NTS	JOB NUMBER	
CURTAINWALL, ROOFING, AND WATERPROOFING CONSULTANTS			DRAWING NUMBER D-01	

J.H.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers:

1. Greenstone Slate Company, 325 Upper Road, Poultney, VT
(802) 287-4333

2.2 SLATE

- A. Slate Shingles: C406-89, Grade S1; hard, dense, and sound; chamfered edges, with nail holes machine punched or drilled and countersunk. No broken or cracked slates, no broken exposed corners exceeding 1 1/2", and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof.

1. Thickness of Slate:

A.	1/4" Standard Grade-Selects	680-780 lbs/sq
B.	Texture	1/4" to 3/8" Standard - Rough 800-1000 lbs/sq
C.	3/8" to 1/2' Thickness - Architectural	1200- lbs/sq
D.	1/2" to 3/4" Thickness - Heavy Grade	1800-2200 lbs/sq
E.	3/4" to 1" Thickness - Estate Grade	2500-3000 lbs/sq

4. Color of slate shall be Greenstone:

- A. Vermont Imperial Blend

2. Size:

A.	Length of Slate To Be	<u>12</u>	"
B.	Width of Slate To Be	<u>10</u>	"

2.3 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: Copper

- 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.

2.4 UNDERLAYMENTS

- A. One layer of Grace Ice and Water Shield over entire roof deck

2.5 FASTENERS

- A. Provide 10 gauge solid copper slaters nails. Length (formula=thickness x 2 + 1")

2.6 Elastomeric Sealant

- A. ASTM C920 elastomeric polyurethane, polymer sealant; of Type, Grade, Class and Use classifications required to seal joints in slate shingle roofing and remain watertight. Where sealant will be exposed, provide in color matching shingle.

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 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 roofing.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 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".
- B. Install metal flashings according to recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual".
- C. Apron Flashing: Extend lower flange over and beyond each side of down slope slate shingles and up the vertical surface.
- D. Step Flashings: Install with a 3-inch head lap extending over the underlying slates and up the vertical surface. Install with lower edge of flashing just upslope of and concealed by, butt of overlying slate shingle. Fasten to roof deck only.
- E. Cricket Flashings: Install against the roof penetrating element, extending concealed flange beneath upslope slate shingles and beyond each side.
- F. Hip Flashings: Install centrally over hip with lower edge of flashing concealed by butt of overlying slate shingle. Fasten to roof deck.
- G. 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.
- H. Rake Drip Edges: Install over underlayment and fasten to roof deck.
- I. Eave Drip Edges: Install beneath underlayment and fasten to roof deck.

JN

3.4 SLATE-SHINGLE INSTALLATION

A. Installation, General: Beginning at eaves, install slate shingles according to written recommendations of Greenstone Slate and details and recommendations in NRCA's "The NRCA Roofing And Waterproofing Manual".

1. Install shingle starter course chamfered edge down.

B. Install first and remaining shingle courses with chamfered face up. Install full width first course at rake edge.

1. Offset joint of (random width slate) (uniform width slate) a minimum of 3 inches in succeeding courses.

C. Maintain a 3-inch minimum head lap between succeeding shingle courses.

D. Extend shingle starter course and first course 2 inches over facial at eaves.

E. Extend shingle starter course and succeeding courses 1 inch over rake edge.

F. Cut and fit slate neatly around projections through roof.

G. Hang slate with two fasteners for each shingle with fasteners lightly touching slate. Do not drive fasteners home drawing slates downward or leave fastener head protruding enough to interfere with overlapping shingle above.

H. Hips:

1. Mitered Hip

2. Saddle Hip

3. Boston Hip

4. Fantail Hip

5. Copper

I. Ridges:

1. Saddle Ridge

2. Strip Saddle Ridge

3. Comb Ridge

4. Copper Ridge

J. Valleys:

1. Open Valleys

2. Closed Valleys

3. Round Valleys

4. Canoe Valleys

Cut slate shingles to form straight lines at open valleys, trimming upper concealed comers of shingles. Maintain uniform width of exposed open valley from highest to lowest point.

1. Do not nail shingles to valley metal flashings.

J.H.

HOPKINS COUNTY
RFP# 2017-002
COURTHOUSE ROOF

NON-COLLUSION AFFIDAVIT

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. He further certifies that bidder agrees to furnish any and/or all items upon which prices are extended at the price offered, and upon the conditions contained in the specifications of the Invitation to Bid.

STATE OF TEXAS

COUNTY OF HOPKINS

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared Jacob Horn, who after being by me duly sworn, did depose and say: "I, Jacob Horn am a duly authorized officer of/agent for HB Greenstar and have been duly authorized to execute the foregoing bid on behalf of the said Company. I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has he been for the past (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of equipment, services, or supplies bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder HB Greenstar
12015 Shiloh RD # 1518
Dallas Texas 75218

Telephone _____
By Jacob Horn Title President
Type Name

Signature [Handwritten Signature]

SUBSCRIBED AND SWORN to me by the above named Jacob Horn
on this the 29 day of December, 2016.

M. L. Eakin
Notary Public in and for the State of Texas

