

# Rooftop Systems Engineers, P.C.

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## ADDENDUM #1

July 2, 2014

**PARTIAL REROOFING AND REPAIRS of the EDUCATION BUILDING  
at the  
IMPERIAL CENTRE  
ROCKY MOUNT, NC  
CRM 76129**

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This addendum consists of:

1. A revised Notice to Bidders (one page).
  2. Paragraphs 2., 3. and 4. of Section 00100, INSTRUCTIONS TO BIDDERS shall be revised to read as follows:
    - “2. *Bid Security Requirements (5% Bid Bond)*
    3. *Performance Bond - (100 % of Contract)*
    4. *Payment Bond - (100 % of Contract)*”
  3. Use the attached revised Bid Schedule (pages 6 and 7 of Section 00300).
  4. Add Section 07920 - Sealants and Caulking (18 pages).
  5. Replace Section 09900 - Paints and Coatings, dated June 7, 2014, with Section 09900 - Paints and Coatings, **dated July 2, 2014.**
  6. Review the minutes of the prebid meeting which was held on June 24, 2014, and the sign-in sheet (attached six pages).
  7. Utilize the attached INTERIOR REPAIRS - SCOPE OF WORK (two pages). This scope of work replaces Paragraph 1.2 of Section 01010 Summary of Work, and it replaces the scope of work noted on drawing Sheet 4 of 12 (11" X 17").
  8. Utilize the attached EXTERIOR WALLS - TYPICAL CONDITIONS TO BE REPAIRED (fourteen pages, 8½" X 11" and one sheet 11" X 17"). This scope of work replaces Paragraph 1.4 of Section 01010 Summary of Work.
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Bidders are to acknowledge receipt of this addendum on the Bid Schedule.

Designer: **ROOFTOP SYSTEMS ENGINEERS, P.C.**



By: John L. Willers, P.E.

## NOTICE TO BIDDERS

Sealed proposals will be received by the City of Rocky Mount Purchasing Office in the Administrative Complex, 331 S. Franklin Street, P.O. Box 1180, Rocky Mount, North Carolina 27802, telephone number (252) 972-1226, up to **2:00 P.M. on Tuesday, July 22, 2014** for “PARTIAL REROOFING AND REPAIRS OF THE EDUCATION BUILDING AT THE IMPERIAL CENTRE – ROCKY MOUNT, NC.” The bid opening will be held in Conference Room 3 located on the second floor.

Complete plans, specifications and contract documents will be open for inspection in the Department of Engineering and Purchasing Offices, City of Rocky Mount, 331 S. Franklin Street, Rocky Mount, NC; and at Rooftop Systems Engineers, Suite 201, 316 West Millbrook Road, Raleigh, NC.

The work of this Project shall consist of the reroofing of approximately 6,500 sq. ft. of asphalt shingles, slate tile repair, and miscellaneous repairs at the Education Building of the Imperial Centre located at 270 Gay Street, Rocky Mount, NC 27804. The bid will be awarded as a single prime contract.

All contractors submitting bids will be required to provide with its bid either (1) a notarized affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable total or (2) documentation of its good faith effort to solicit Minority Business Enterprises (MBEs) per N.C. Gen. Stat. 143-128.2, as subcontractors, meet this goal, including any advertisements, solicitations and evidence of other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract as required by the contract documents. Failure to file the required affidavit or documentation that demonstrates that the contractor made the required good faith effort is grounds for rejection of the bid. The contractor shall furnish all materials, labor and equipment necessary for a complete and functional installation.

All contractors are hereby notified that they must have all licenses under the State laws governing their respective trades. Bidders are notified that Chapter 87 (“Contractors”) of the General Statutes of North Carolina will be observed in receiving bids and awarding contracts.

Performance and Payment Bonds are required.

No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of 45 days.

The City of Rocky Mount has a 5% good faith effort goal for this project.

A non-mandatory pre-bid meeting will be held at the Education Building of the Imperial Centre, 270 Gay Street, Rocky Mount, NC 27804, at **10:00 A.M. on Wednesday, July 9, 2014**. Minority business owners, single prime contractors, subcontractors or suppliers are urged to attend the pre-bid meeting to meet other potential single prime contractors.

The City reserves the right to reject any or all bids and to waive informalities.

The City of Rocky Mount will not discriminate against any contractor submitting a bid because of race, creed, color, national origin or handicap.

**SECTION 00300**  
**BID SCHEDULE - CRM 76129**

TO: THE PURCHASING MANAGER OF THE CITY OF ROCKY MOUNT, NORTH CAROLINA

1. The undersigned understands and agrees to comply with and be bound by these Contract Documents.
2. The undersigned acknowledges receipt of and has made adequate provisions or adjustments to his (its) Bid Lump Sum or Unit Prices for the following Addendum (Addenda).

No. \_\_\_\_\_ Date: \_\_\_\_\_ Received: \_\_\_\_\_

No. \_\_\_\_\_ Date: \_\_\_\_\_ Received: \_\_\_\_\_

No. \_\_\_\_\_ Date: \_\_\_\_\_ Received: \_\_\_\_\_

3. The undersigned, having examined the proposed Contract Documents and Plans titled:

**PARTIAL REROOFING AND REPAIRS at the EDUCATION BUILDING OF THE  
IMPERIAL CENTRE  
ROCKY MOUNT, NC  
City of Rocky Mount**

and having visited the site and examined the conditions affecting the Work, hereby proposes and agrees to furnish all labor, materials, equipment, and appliances, and to perform operations necessary to complete the Work as required by said proposed Contract Documents, for the stipulated prices as shown below:

**BASE BID**

- A. Mobilization, bonds and submittals.

Lump Sum \$ \_\_\_\_\_

- B. Interior Repairs.

Lump Sum \$ \_\_\_\_\_

- C. Reroofing of Roof Areas A, B and E and completion of all other work specified but not listed on this Bid Schedule.

Lump Sum \$ \_\_\_\_\_

- D. Replacement of deteriorated existing wood decking.

500 Square Feet @ \$ \_\_\_\_\_/Square Foot = \$ \_\_\_\_\_  
(Extended Unit Price)

- E. Repair of Roof Areas A, B, C, D, F, G and H except for any repair of any damaged wood fascia or soffit.

Lump Sum \$ \_\_\_\_\_

F. Replacement of deteriorated existing fascia and/or soffit.

100 Board Feet @ \$ \_\_\_\_\_/Board Foot = \$ \_\_\_\_\_  
(Extended Unit Price)

TOTAL BASE BID (Items A - F) \_\_\_\_\_

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ )

**ALTERNATE #1 - Exterior Masonry Wall Repairs.**

Lump Sum \$ \_\_\_\_\_

TOTAL ALTERNATE BID \_\_\_\_\_

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ )

**UNIT PRICES**

In the event of a discrepancy in the mathematical extensions of Unit Prices, the Extended Unit Price shall be corrected per the unit price shown. In the event of a discrepancy in the addition of Extended Unit Prices and Lump Sum Prices, the Total shall be corrected based on the Extended Unit Prices and Lump Sum Prices shown.

Should the actual quantities be increased or decreased relative to the estimated quantities included in the Base Bid, the Unit Prices shown in the Base Bid will be used to adjust the contract price in accordance with the contract documents, throughout the life of the contract.

The following documents shall be completed and attached to the Bid Schedule: Form of Proposal, City of Rocky Mount North Carolina Nondiscrimination Clause, City of Rocky Mount North Carolina Certification Regarding Debarment and Suspension, Identification of Minority Business Participation, and Affidavit A or Affidavit B. Failure to include any of the above with the bid form is grounds for rejection of the bid.

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(	)	Bidder: _____
(	)	
(	)	By: _____
(	)	
(	)	Address: _____
(	CORPORATE SEAL	)
(	)	_____
(	)	
(	)	License Number: _____
(	)	
(	)	License Type: _____

Bid dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

END OF SECTION

## SECTION 07920

### SEALANTS AND CAULKING

#### PART 1 GENERAL

##### 1.1 Scope

1.1.1 The contractor shall furnish and/or install all supervision, labor, materials, equipment, services and incidentals to complete all sealant and caulking work as shown on the drawings and/or as herein specified.

1.1.2 All work under this section shall be completed in accordance with the manufacturer's printed instructions.

##### 1.2 Work Included

1.2.1 Remove failed joint sealants and backup material and replace with new materials as herein specified.

1.2.2 Joints included:

1.2.2.1 Brick to brick.

1.2.2.2 Wood to brick.

1.2.2.3 Wood to stone.

1.2.2.4 Metal to metal.

1.2.2.5 Around conduit penetrations.

1.3 Unusual Situations Or Job Conditions - The contractor, in order to properly prepare his bid, shall fully inspect the areas of work. If any unusual situations or additional faults, not covered by the bid documents are discovered, the contractor shall report such discoveries to the Designer prior to submitting the bid.

##### 1.4 Protection

1.4.1 Areas adjacent to the work, including but not limited to glass, landscaping and irrigation systems, shall be fully protected from damage at all times. Any damages related to the performance of this work shall be repaired by the contractor at no cost to the owner.

1.4.2 The building shall be so protected as to prevent any dust, grit, or debris, caused by work under this contract from entering the building. Should any dust, grit, or debris enter the building, it shall be immediately cleaned out by the contractor to the satisfaction of the Designer and Owner.

1.5 Quality Assurance:

- 1.5.1 Qualifications of Manufacturer: Products used in this work shall be produced by Manufacturers regularly engaged in the manufacture of similar products and with a history of successful production acceptable to the Designer.
- 1.5.2 The Sealant Contractor shall be an applicator approved by the Sealant Manufacturer. Such approval shall be established before the bid is submitted and a written certification of the Contractor's approval shall be included with the bid.
- 1.5.3 In acceptance or rejection of the work of this section, the Owner will make no allowance for lack of skill on the part of the workmen. All sealant mechanics shall be fully experienced in their trade. Great care shall be taken to ensure that the sealant is not introduced to adjacent surfaces, and if such surfaces are inadvertently contaminated, material shall be removed immediately.
- 1.5.4 All surfaces to be sealed shall be properly prepared as hereinafter specified.
- 1.5.5 Any damage of any type caused by the contractor's execution of the work or any other action by the Contractor shall be repaired by the Contractor at his expense.

1.6 Warranty:

A sample copy of the Sealant manufacturer's warranty shall be submitted with the contractor's bid.

1.7 Product Handling

- 1.7.1 Materials shall be delivered in their original, tightly sealed containers or unopened packages, all clearly labeled with the manufacturer's name, product name and lot numbers, where applicable.
- 1.7.2 Prior to use, unopened containers shall be protected from heat and direct sunshine. In cool or cold weather, store containers where temperatures are approximately 75 degrees F. For at least sixteen (16) hours before using. Do not open containers until necessary preparatory work has been completed. If a particular manufacturer whose products are approved for use on this project has different temperature requirements than those specified above, such requirements shall be followed.
- 1.7.3 Do not retain on the job site any material which has exceeded the shelf life recommended by it's manufacturer.

- 1.8 Job Conditions - Do not apply caulking or sealants when the surface temperature is below 40 degrees Fahrenheit or above 125 degrees Fahrenheit. Do not apply materials when surface is damp or during cold, rainy, or frosty weather.

## **PART 2 PRODUCTS**

### 2.1 Silicone Sealant

#### 2.1.1 Material Description

2.1.1.1 Composition: Sealant shall be low modulus, neutral-curing one component silicone, with a movement capability of +/- 50%.

2.1.1.2 Material shall be of gun grade consistency, shall be easily workable and shall be capable of producing a smooth, attractive sealant bead.

2.1.1.3 Color shall be by Dow Corning or approved equal. Submit samples for the Owner's selection and approval.

2.1.2 The following manufacturers and their products listed are approved for use on this project:

2.1.2.1 Pecora Corporation: 864 Architectural Silicone Sealant

2.1.2.2 Dow Corning 790 Silicone Building Sealant

### 2.2 Bond Breaker Material

2.2.1 Backer rod shall be a open cell polyethylene backer. Size shall be approximately 25% larger than the width of the joint to which it is to be installed.

2.2.2 In joints where depth or joint configuration is not adequate to accept a backer rod, a polyethylene bond breaker tape with adhesive backing shall be installed.

2.3 Cleaner: Xylol, Toluene, or commercial solvent recommended by the sealant manufacturer.

### 2.4 Primer

2.4.1 Pecora P-64

2.4.2 Dow Corning 1200 Prime Coat

## 2.5 Other Materials

All other materials not specifically described but required for complete and proper caulking and installation of sealants shall be first quality of their respective kinds, new, and as selected and furnished by the caulking manufacturer, subject to the approval of the Designer.

## **PART 3 EXECUTION**

- 3.1 Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.
- 3.2 Construct joints as recommended in writing by the sealant manufacturer and as shown on the details bound with this specification booklet.
- 3.3 Joint Preparation
  - 3.3.1 Grinding is required.
  - 3.3.2 Extent of grinding: At surfaces specified to be ground, abrade the surface to remove all laitance, surface dirt, concrete form release agents, water repellants, surface treatments, protective coatings, old sealant or other substance which may affect sealant adhesion.
  - 3.3.3 Blow dust, loose particles and other debris with oil-free compressed air. Make as many passes with cleaning tools and compressed air as required to ensure that joints are clean and free of existing sealing materials and/or other dirt and debris.
  - 3.3.4 Clean all joints of contaminants and impurities to the depth at which the new sealant and backer rod are to be installed. This may be accomplished by wire brushing (power or hand), solvent wipe, or a combination.
  - 3.3.5 Metal surfaces should be cleaned with solvent.
  - 3.3.6 Cleaning of all surfaces should be done on the same day on which the sealant is applied.
  - 3.3.7 All masonry or concrete surfaces shall be primed with the specified primer. Metal and other substrates shall be primed as determined by field testing.
  - 3.3.8 Refer to paragraph 3.6.3 for joint preparation at existing joints less than 1/4" wide.

### 3.4 Installation of Back-Up Material

Use only the back-up material recommended by the manufacturer of the sealant and approved by the Designer for the particular installation, compressing the back-up material 25 percent to 50 percent to secure a positive and secure fit. When using back-up of tube or rod stock, avoid lengthwise stretching of the material. Do not twist or braid hose, or rod back-up stock.

### 3.5 Installation of Bond Breaker Tape

At joints where rod type backer cannot be used, apply bond breaker tape with adhesive backing to the back of the joint to prevent three sided adhesion.

### 3.6 Joint Width and Sealant Depth

3.6.1 Joint depth shall never be greater than width.

3.6.2 The ratio of the width of the joint to depth of the sealant shall be, as close as possible, two to one (2:1) with no joint depth being less than one quarter (1/4) inch.

<u>Joint Width (Inches)</u>	<u>Sealant Depth at Midpoint (inches)</u>
1/4 to 1/2	1/4
1/2 to 3/4	1/4 to 3/8
3/4 to 1	3/8 to 1/2
1 to 2	1/2

3.6.3 At joints that are less than 1/4" wide, joint shall be sawn or ground with a 1/4" diamond tuck pointing blade to increase joint width to at least 1/4" wide. Utilize equipment with a fence or other device to produce a straight cut joint. Depth of cutting shall be controlled so as not to damage any existing granite anchorage devices.

3.6.4 The sealant depth shall be controlled by the use of back-up materials to maintain the recommended depth.

3.6.5 Where depth of joint does not permit the use of back-up material, then a bond breaker tape must be installed to prevent three point bonding.

### 3.7 Sealant Application

3.7.1 It shall be the responsibility of the applicator to install the sealant in accord with the contract documents and in a manner that ensures optimum performance of the materials used.

- 3.7.2 All sealing shall be done when surface temperatures are above 40 degrees F. Do not apply sealant if precipitation is forecast in the next 24 hours after application. All surfaces receiving caulking or sealing material shall be dry and clean.
- 3.7.3 Masking: Thoroughly and completely mask all joints where the appearance of sealant on adjacent surfaces would be objectionable.
- 3.7.4 Sealant shall be applied in a continuous operation using a professional cartridge-type caulking gun or bulk-loading gun. Guns shall have nozzle of proper size and shall provide sufficient pressure to completely fill joints as designed.
- 3.7.5 There shall be no air voids throughout the entire joint cross section. To ensure complete joint fill, tooling shall be performed within ten (10) minutes of sealant application.
- 3.7.6 At corner and butt/splice conditions for metal to metal joints, apply bond breaker tape prior to sealant application as illustrated in the standard details.

### 3.8 Tooling

- 3.8.1 Tool all sealants at all conditions with light pressure to spread the material against the back-up material and the joint surfaces. Use a tool that keeps the sealant within the joint and results in the sealant having a concave surface. The sealant shall be dry tooled unless the sealant manufacturer specifically approves otherwise. If the sealant manufacturer approves, the tool may be dampened with a sealant manufacturer approved reducer. Do not use water or soapy water on the tool and do not over tool.
- 3.8.2 Tool the sealant at window sills and other like places so that precipitation, cleaning solutions, etc. will not pond.
- 3.8.3 At butt/splice conditions for metal to metal joints, tool sealant to form a uniform, convex bead.
- 3.8.4 When masking materials are used, they shall be removed immediately after tooling the sealant.

### 3.9 Cleaning

- 3.9.1 Ensure that uncured sealants are not allowed to contact surfaces adjacent to the joints, or any other non-joint surfaces. If uncured sealants are introduced to prohibited areas, such sealants shall be removed as follows:

3.9.1.1 Non-porous Surfaces: Immediately remove all excess sealant adjacent to the joint and elsewhere by using xylol, toluol or methyl ethel ketone while sealant is still in uncured state.

3.9.1.2 Porous Surfaces: Allow sealant to develop initial cure, then remove by abrasion or other mechanical means. Exercise extreme care to maintain, undamaged, the original surface texture.

3.9.1.3 Equipment and Tools: Equipment and tools may be cleaned with solvents such as xylol, toluol or methyl ethel ketone while sealant is uncured.

3.9.2 Observe proper precautions when using flammable solvents.

### 3.10 Quality Control

3.10.1 The following tests shall be performed as a part of the work to verify the material, as installed, will perform as intended.

3.10.1.1 Skin-Over Time/Elastomeric Test - this test should be performed once per week and on every new lot of sealant used.

A. Spread a 0.04" film of sealant on a sheet of polyethylene or wax paper.

B. Every few minutes, touch the sealant film lightly with a tool.

C. When the sealant does not adhere to the tool, the sealant has skinned over. Note the time required to reach this point. If a skin has not formed in three hours, do not use this material and notify the Designer.

D. Allow the sealant to cure for 24 hours. After 24 hours, peel the sealant away from the polyethylene sheet. Stretch the sealant slowly to see that it has cured. If the sealant has not cured, contact the Designer.

E. Record the results in the Product Quality Control Log book. This testing must be completed and results recorded, retained and available for review upon request. A sample form is found at the end of this section.

1.1.1.2 Standard Field Adhesion Test - this test should be performed at the job site after the sealant is fully cured (typically 7-21 days). Five tests shall be required for the first 1000 LF of caulking and one test per 1000 LF thereafter or one test per floor per elevation.

- A. Make a knife cut horizontally from one side of the joint to the other.
- B. Make two vertical cuts (from the horizontal cut) approximately 3" long, at both sides of the joint.
- C. Place a mark on the sealant tab 1" from the end of the vertical cuts.
- D. Grasp a 2" piece of the sealant firmly just beyond the 1" mark and pull at a 90 degree angle.
- E. If dissimilar substrates are being sealed, check the adhesion of the sealant to each substrate separately. This is accomplished by extending the vertical cut along one side of the joint, checking adhesion to the opposite side, and then repeating for the other surface.
- F. The sample shall be considered to pass if the sealant can be pulled 3" (300 % extension) without bond loss. If the sample does not pass, contact the designer.
- G. Inspect the joint for complete fill. The joint should not have voids and joint dimensions should match those defined in paragraph 3.4.2.
- H. Record the test results in the Field Adhesion Test Log. This testing must be completed and results recorded, retained and available for review upon request. A sample form is found at the end of this section.

1.1.2 Upon request from Designer and at no additional cost, Contractor shall provide safe access to Designer for purposes of witnessing field testing.

**Product Quality Control Log -- One-Part Silicone Sealants**

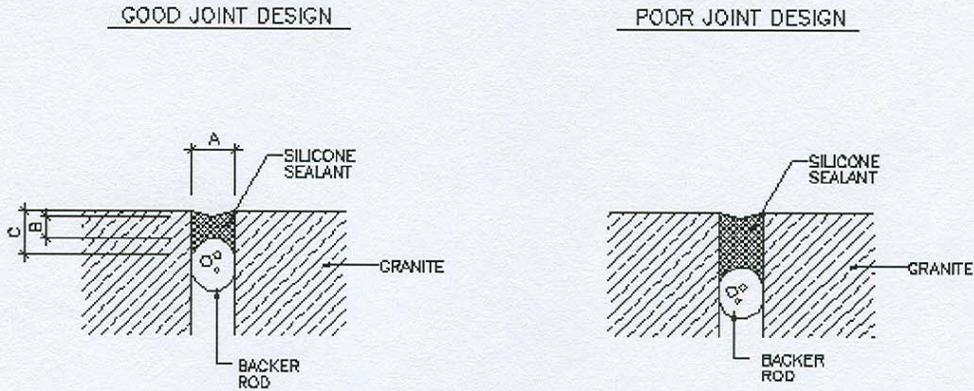
<b>Project</b>							
<b>Location/Elevation/Unit ID</b>							
<b>Sealant Color</b>							
<b>Date</b>	<b>Time</b>	<b>Tester Initials</b>	<b>Sealant Lot Number Color</b>	<b>Tack-Free Time (Minutes)</b>	<b>Cured After 24 Hours (Y/N)</b>	<b>Elastomeric (Y/N)</b>	

**Field/Shop Adhesion Testing Log**

<b>Project</b>									
<b>Sealant</b>									
<b>Sealant Lot #/Color</b>									
<b>Primer (if applicable)</b>									
<b>Date Applied</b>	<b>Applied by (initials)</b>	<b>Test Date</b>	<b>Test Location (Elevation, Unit Number, etc.)</b>	<b>Primed (Y/N) Primer Lot #</b>	<b>Sealant Color and Lot #</b>	<b>Acceptable Joint Fill (Y/N)</b>	<b>Acceptable Adhesion (Y/N) and %Elongation</b>	<b>Comments</b>	<b>Tester Initials</b>

## Conventional Moving Weatherseal

### CONVENTIONAL MOVING WEATHERSEAL



#### Good Joint Design

##### Key Points:

1. Dimension A must be at least 1/4" (6 mm).
2. Dimension B must be at least 1/8" (3 mm).
3. Dimension C must be at least 1/4" (6 mm).
4. Ratio of A:B should be 2:1 minimum.
5. Joint surface tooled.
6. Dimension B suggested Maximum = 1/2" (12.7 mm).
7. Dimension A Maximum = 4" (100 mm). Joints wider than 2" (50 mm) may slump slightly; therefore double application techniques of the sealant may be required.

#### Poor Joint Design

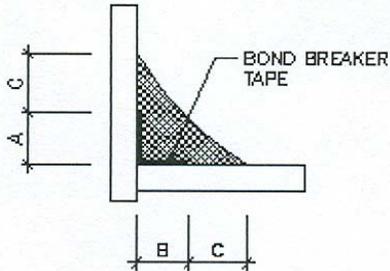
##### Concerns:

1. A deep sealant joint will not have the same movement capability as a properly designed joint.
2. Slow cure due to excessive sealant depth.

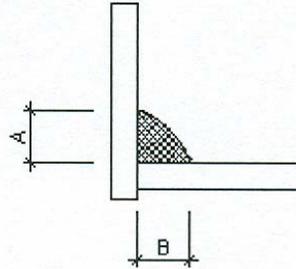
## Moving Corner Joints

### MOVING CORNER JOINT

#### GOOD JOINT DESIGN



#### POOR JOINT DESIGN



#### Good Joint Design

##### Key Points:

1. Dimension A and B must be at least 1/4" (6 mm).
2. A bond breaker tape or backer rod must be present if joint movement is anticipated.
3. Joint must be tooled flat or slightly concave.
4. Dimension C must be at least 1/4" (6 mm).

#### Poor Joint Design

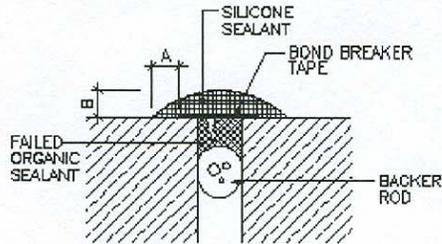
##### Concerns:

1. Dimension A or B less than 1/4" (6 mm).
2. Joint not properly tooled.
3. No bond breaker material; therefore the joint will not accept movement.

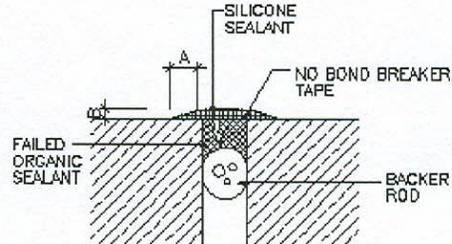
## Remedial Joints

### REMEDIAL JOINTS

#### GOOD JOINT DESIGN



#### POOR JOINT DESIGN



#### Good Joint Design

##### Key Points:

1. Dimension A must be at least 1/4" (6 mm).
2. Dimension B must be at least 1/8" (3 mm).
3. Bond breaker tape must be used to isolate fresh sealant from failed organic weatherseal and to allow joint movement.

#### Poor Joint Design

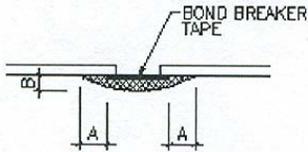
##### Concerns:

1. Dimension A less than 1/4" (6 mm) increases difficulty in obtaining adhesion and increases the likelihood for voids.
2. Dimension B less than 1/8" (3 mm) increases the likelihood of pinholes or voids in tooling; poor cohesive integrity.
3. No bond breaker material; therefore the joint will not accept movement.

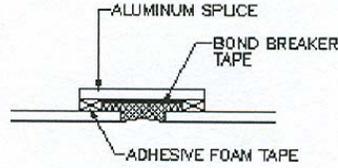
## Splice Joints

### SPLICE JOINT

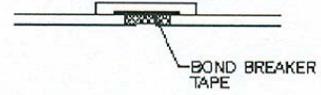
GOOD JOINT DESIGN



GOOD JOINT DESIGN



POOR JOINT DESIGN



### Good Joint Design

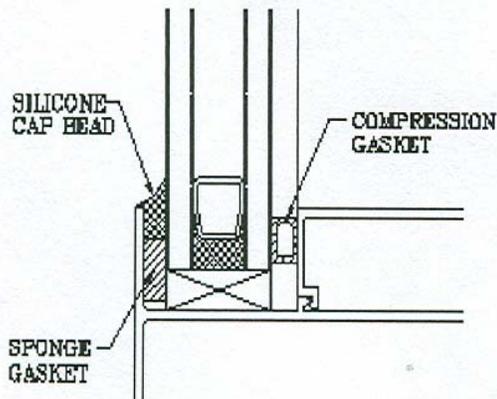
#### Key Points:

1. Joint is very difficult to clean.
2. Bond breaker hard to position/size correctly.
3. Movement during cure can cause joint failure.

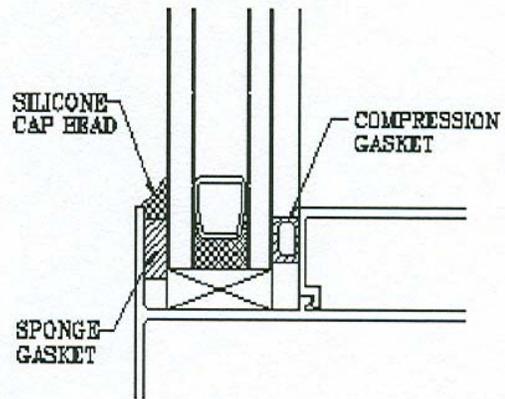
## Cap Bead Glazing Joints

### CAP BEAD GLAZING JOINT

#### GOOD JOINT DESIGN



#### POOR JOINT DESIGN



#### Good Joint Design

##### **Key Points:**

1. Adhesion contact on glass and metal is at least 1/4" (6 mm).
2. Silicone is compatible with gasket.
3. Dark-colored sealant masks possible discoloration from the gasket.

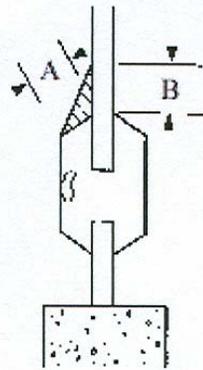
#### Poor Joint Design

##### **Concerns:**

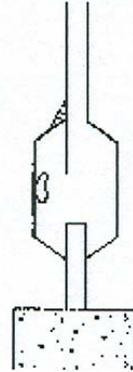
1. Inadequate contact between sealant and external metal.
2. Gray sealant is prone to discoloration.

## Lock-Strip Wet Seal Joint

GOOD JOINT DESIGN



POOR JOINT DESIGN



Good Joint Design

### Key Points:

1. Both dimensions A and B are 1/4" or greater.
2. DOW CORNING 791 or DOW CORNING 795 (dark color) Sealant is used with DOW CORNING® 1200 Prime Coat on glass and lock-strip gasket.

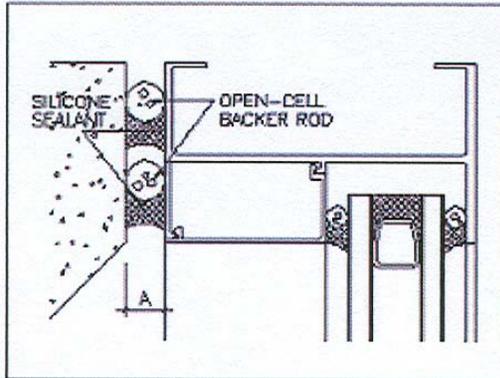
Poor Joint Design

### Concerns:

1. Insufficient sealant to accommodate movement.

## Dual-Seal Moving Weatherseal

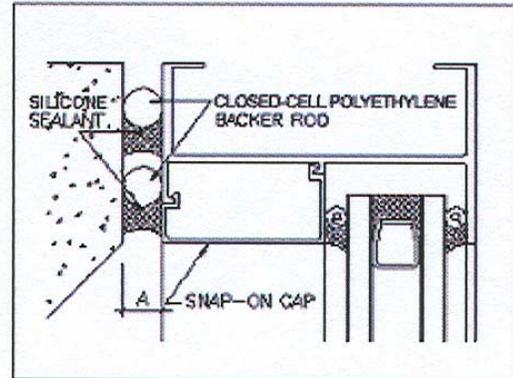
Good Joint Design



**Key Points :**

1. Both weatherseals comply with the requirements for conventional moving weatherseals (addressed previously)
2. Open-cell backer rod is used to ensure full cure of the back weatherseal.
3. If closed-cell backer rod is used, the back weatherseal must be fully cured prior to the installation of the exterior seal.
4. Dimension A is at least 3/4" wide to assist application of the rear sealant joint.

Poor Joint Design



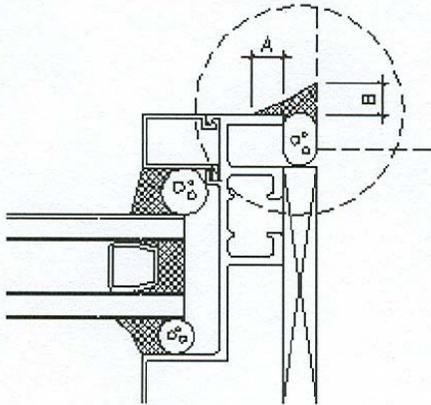
**Concerns :**

1. If both joints are sealed at or near the same time, the closed-cell backer rod will prevent moisture from reaching the rear sealant joint, and the seal will not cure.
2. Dimension A less than 3/4", making application of rear joint difficult.
3. Exterior joint seal to aesthetic snap-on cap.

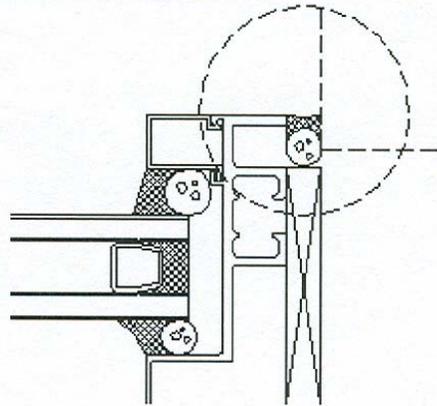
Window Perimeter Joints: Insufficient Aluminum Extrusion

WINDOW PERIMETER JOINT : INSUFFICIENT ALUMINUM EXTRUSION

GOOD JOINT DESIGN



POOR JOINT DESIGN



Good Joint Design

**Key Points:**

1. Dimensions A and B are each 1/4" (6 mm) or larger.

Poor Joint Design

**Concerns:**

1. Attempting to apply sealant onto the edge (or behind) thin gauge metal results in inadequate sealant/substrate contact and water leakage.

**END OF SECTION**

**DIVISION 9 - FINISHES**  
**SECTION 09900 - PAINTS AND COATINGS**

**PART 1 GENERAL**

1.1 WORK INCLUDES:

- 1.1.1 Interior painting of new and existing plaster surfaces.
- 1.1.2 Painting of steel lintels which support exterior brick masonry above entrances, doors and windows.

1.2 REFERENCES

- 1.2.1 ASTM D 16 - Standard Terminology for Paint, Related Coatings, Materials and Applications.
- 1.2.2 ASTM D 4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-based Materials; 1992 (Re-approved 1997).

1.3 RELATED SECTIONS:

- 1.3.1 Drawings and general provisions of Contract, including General Conditions apply to work of this Section.
- 1.3.2 Section 04520 - Masonry Restoration.
- 1.3.3 Section 09280 - Plaster Restoration.

1.4 SUBMITTALS:

- 1.4.1 Product Data consisting of manufacturer's product specifications and installation instructions for each product.
- 1.4.2 Two paper chip samples, 12" x 12", for each color to be used.

1.5 QUALITY ASSURANCE:

Installer Qualifications: Company specializing in performing the work of this section with a minimum 5 years of experience.

1.6 DELIVERY, STORAGE AND HANDLING:

- 1.6.1 Deliver materials to project site in original packages, containers and bundles labeled with manufacturer's name, product brand name and lot number.

- 1.6.2 Paint materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

## 1.7 ENVIRONMENTAL REQUIREMENTS:

- 1.7.1 Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- 1.7.2 Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint manufacturer.
- 1.7.3 Maintain minimum ambient temperature of 50 degrees F for at least 7 days before beginning paint application, during application, and for 7 days after completing paint application. Distribute heat evenly; prevent concentrated or uneven heat from contacting paint.
- 1.7.4 Existing paint on plaster contains lead. Contractor shall develop and implement a worker protection plan in accord with 29 CFR 1926.20 and 29 CFR 1026.2, and shall follow the recommendations of "A Guide to Lead Exposure in the Construction Industry," published by the Division of Occupational Safety and Health, North Carolina Department of Labor, and all OSHA regulations.

## 1.8 EXTRA MATERIALS:

Supply 1 gallon of each color: store where directed. Label each container with color recipe in addition to manufacturer's label.

## PART 2 PRODUCTS

### 2.1 PAINT:

- 2.1.1 Interior paint:
  - 2.1.1.1 Manufacturers:
    - A. Duron, Inc.:
    - B. ICI Paints North America
    - C. Benjamin Moore & Co.
  - 2.1.1.2 Primer: Acrylic Enamel Undercoater
  - 2.1.1.3 Flat: Two coats acrylic latex-color to match existing wall color.
  - 2.1.1.4 Patching Material: Setting latex filler.

- 2.1.2 Exterior paint on steel lintels:
  - 2.1.2.1 Manufacturers
    - A. Tnemec Company Incorporated
    - B. Sherwin-Williams Co.
    - C. PPG Architectural Finishes, Inc.
  - 2.1.2.2 Paint Systems - Ferrous Metals, Primed, Finish coat, 2 coats total. Color selected by Owner.

## 2.2 PAINTS AND COATINGS-GENERAL:

Provide the manufacturer's top-rated product for each application.

## **PART 3 EXECUTION**

### 3.1 EXAMINATION

- 3.1.1 Verify that surfaces are ready to receive Work as instructed by the product manufacturer.
- 3.1.2 Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- 3.1.3 Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximum: Plaster-12 percent.

### 3.2 PREPARATION:

- 3.2.1 Interior painting:
  - 3.2.1.1 Wash wall surfaces with sponge and detergent solution to remove surface dust and chalk. Rinse with clear water and wipe dry.
  - 3.2.1.2 Fill cracks or surface blemishes with latex filler and sand smooth.
  - 3.2.1.3 Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
  - 3.2.1.4 Mask areas not to be painted. Provide plastic sheeting or drop cloths to catch overspray.

3.2.2 Exterior painting of steel lintels:

3.2.2.1 Remove mildew, chalking paint and dirt by scrubbing with a solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

3.2.2.2 Remove surface contamination and oils and wash with solvent.

3.2.2.3 Clean steel of loose paint and rust. Where rust is observed mechanically clean the steel to remove the rust to bright metal (surface preparation shall meet SSPC-SP 3 Power Tool Cleaning).

3.2.2.4 Mask and protect all work not to be coated.

3.3 APPLICATION:

3.3.1 Interior painting - Apply products in accordance with manufacturer's instructions, using airless sprayer. Allow each coat to dry completely before applying next coat.

3.3.2 Exterior painting of steel lintels: Apply products in accordance with manufacturer's instructions. Brush apply Paint.

3.4 CLEANING

Collect waste material and remove daily from site. Remove all masking and clean all adjacent surfaces at end of work.

**END OF SECTION**

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## MINUTES

### PRE-BID CONFERENCE 10:00 A.M., JUNE 25, 2014 Partial Roof Replacement and Repairs at the Education Building of the Imperial Centre

The following is an outline of what was discussed. Items that are in addition to or which have changed from what is noted in the plans and specifications are shown in **ALL CAPS AND BOLD**.

---

- I. Introductions
  - A. Personnel - see the attached sign in sheet. (David Griffin, Superintendent of the Imperial Centre, joined us after we completed our meeting and started our tour of the rooms slated for plaster repair and painting. His name is not listed on the sign-in sheet.)
  - B. Distributed bid forms.
  - C. Plans and specifications will be emailed to contractors attending.
  - D. Minutes will be sent to all plan holders.
  
- II. Review the scope of the project:
  - A. Interior Repairs:
    - 1. See Section 01010 - Summary of Work
    - 2. See floor plan - Sheet 4
    - 3. Painting, plaster repair, patching cracks in 6 rooms and 2 hallway areas
    - 4. **CHANGES TO INTERIOR REPAIR SCOPE WERE MADE. SEE ATTACHED REVISIONS.**
    - 5. **EDUCATION BUILDING STAFF WILL RELOCATE BOOKS IN THE KINDERMUSIK STUDIO DURING INTERIOR REPAIRS AND PAINTING.**
  
  - B. Roof and Rooftop Fascia, Soffit and Wall Repairs:
    - 1. Existing roof systems:
      - a. Roof areas A, B and C:
        - (1) Plywood deck.
        - (2) Felt underlayment.
        - (3) Asphalt shingles.
      - b. Roof areas D and E:
        - (1) Plywood deck.
        - (2) Felt underlayment.
        - (3) Slate tile.
      - c. Roof areas F, G and H:
        - (1) Plywood deck.
        - (2) Screw fastened board insulation.
        - (3) Adhered single ply thermoplastic membrane.

2. Proposed reroofing at Roof areas A, B, and E.
  - a. Remove all roofing materials and flashing down to the wood deck.
  - b. Remove and replace any wet or deteriorated existing wood decking.
  - c. Install new double layer felt underlayment, valley and ridge liners, and ice and water membrane.
  - d. Install new sheet metal flashings including drip edge, reglets, step flashings, counterflashings, and miscellaneous flashings.
  - e. Install new 25 year rated architectural (laminated) shingles.
  - f. Provide protection to single ply roofing during all work.
  - g. Install ridge vents at Roof Areas A and B.
  
3. Proposed roof repairs:
  - a. Roof Area A - Grind out and tuckpoint masonry joints at chimney. Clean masonry then apply water repellent.
  
  - b. Roof Area B - Install counterflashing above termination bar at south eave.
  
  - c. Roof Area C
    - (1) Seal exposed fasteners at the southeast end of the ridge.
    - (2) Remove the shingles from the ridge vents and install 12" wide ridge shingles.
    - (3) Remove the fasteners that are backing out and seal the existing nail holes. Replace the fasteners with new fasteners, installing the new fasteners 1/4" away from the existing nail holes. Adhere the bottom edge of the loose shingles to the shingles below.
  
  - d. Roof Area D:
    - (1) Replace broken slates and install slates to replace the missing slate shingles (base bid on 10 slates).
    - (2) Fill and seal any openings in the abandoned gutter.
    - (3) Scrape, clean, prime, and paint the sheet metal dormer vents.
    - (4) Seal the gap between the abandoned gutter and the wood trim below.
  
  - e. Roof Areas F, G and H:
    - (1) Cut out and replace / tool-in all sealant above counterflashing.
    - (2) Locate and replace all raised (tenting) insulation fasteners and then patch.
    - (3) Remove and replace loose stripping ply at the southwest edge of Roof Area F.
    - (4) Check for loose membrane seams. If any loose membrane seams are encountered, resecure the seams with a hot air welder.
    - (5) Remove and replace the loose membrane patch adjacent to the fan curb.

- (6) Install a membrane patch over the area that exhibited deteriorated membrane.
    - f. Roof Area H - Remove the insulation fastener and plate that have penetrated the membrane from the underside. Install a new insulation plate and fastener and install a membrane patch.
    - g. All roof areas:
      - (1) Provide weather-proof closures at all fascia, soffit and wall penetrations and openings. This will be a combination of applying sealants and fabricating sheet metal covers.
      - (2) Fill and seal any gaps around pipe penetrations and fabricate and install sheet metal or membrane flashing closures to cover the plywood on the wall beneath.
      - (3) Install fasteners wherever fasteners are missing from the sheet metal wall cladding.
      - (4) Seal any open joints in the sheet metal wall cladding.
      - (5) Clear leaf litter and debris from all roofs.
      - (6) Remove and replace any damaged wood fascia.
      - (7) Cut out sealant at the top of the membrane counterflashing at Roof Areas G and H and install new sealant and install sealant where it is missing.
      - (8) Secure all sidelaps in the sheet metal wall cladding below the eaves and above Roof Areas G and H.
- C. Exterior Masonry Wall Repairs:  
**CLARIFICATIONS TO EXTERIOR SCOPE WERE MADE. SEE THE ATTACHED LIST OF REPAIR TYPES WITH EXAMPLE PHOTOGRAPHS AND A BUILDING PLAN SHOWING THE LOCATIONS WHERE EACH REPAIR TYPE IS REQUIRED.**
- III. Comments by Owner (Represented by Mr. Delton Farmer)
  - A. **SUBMITTED BIDS AND OTHER CORRESPONDENCE TO THE CITY OF ROCKY MOUNT SHOULD INCLUDE "RFQ - 821" AS A PROJECT REFERENCE.**
  - B. **MINORITY AND WOMEN BUSINESS OWNER FORMS MUST BE INCLUDED IN SUBMITTED BIDS OR THEY WILL BE CONSIDERED INVALID.**
- IV. Reviewed the plans
  - A. Roof plan
  - B. See sheet 3 for notes
  - C. Floor plan
  - D. Sheets 5-9 are shingle roof details
  - E. Sheets 10, 11 are closure details
- V. Review the specifications
  - A. Notice to Bidders
    - 1. Bids are due by Friday July 11<sup>th</sup>, 2014 at 4 p.m.
    - 2. Bid, performance, and payment bonds are not required.

- B. Instructions to bidders
  - 1. Payments will be monthly, with 10% retainage
  - 2. 60 days for completion, commencing 10 days after "notice to proceed" is presented.
  - 3. Liquidated damages = \$250/day.
  
- C. Bid Schedule - Included in handout  
**UPON PROJECT AWARD, THE CITY OF ROCKY MOUNT WILL ISSUE A PURCHASE ORDER THAT WILL SERVE AS CONTRACT.**
  
- D. General conditions
  - 1. Article II section 1.02 describes safety regulations
  - 2. Article XXI describes insurance requirements
  
- E. Guidelines for recruitment of minority businesses incl. in spec  
**5% GOOD FAITH EFFORT GOAL.**
  
- F. Supplementary General Conditions
  - 1. Owner provides electricity and **CONSTRUCTION** water. **ELECTRIC OUTLETS ARE LOCATED ON THE ROOF BUT HAVE NOT BEEN TESTED FOR FUNCTIONALITY.**
  - 2. Contractor provides temporary toilet facilities.
  - 3. Work hours M-S, 7:00 a.m. through sunset.
  
- G. Section 01300 - Submittals
  - 1. Digital format - one copy (not 7 as in contract docs)
  - 2. Numbered in order
  
- H. Section 01400
  - 1. Foreman on site at all times that work is being performed.
  - 2. Keep the job site clean
  - 3. Fire extinguishers on site
  - 4. Roof traffic confined to work areas.
  - 5. Protect the public - entrances and walkways.
  - 6. Keep materials and equipment secure.
  
- I. Section 01500 - Temporary Facilities and Controls
  - 1. Parking - **CONSTRUCTION VEHICLE PARKING WILL BE IN CORNER OF PARKING LOT CLOSEST TO FALLS ROAD. UTILIZE GROUND ALONG FALLS ROAD (EAST BLDG ELEVATION) FOR MATERIAL STAGING AND DEMOLITION.**
  - 2. Plans and specs on site.
  
- J. Section 01750 - Guarantees
  - 1. Contractor - 2 years
  - 2. Shingles - 25 years
  - 3. Prefinished sheet metal - 20 years
  - 4. Sealants - 10 years

- K. Section 07311 - Asphalt Shingles
  - 1. Section 2.1.1
  - 2. Ridge vents
  - 3. Stagger each course - not to be raked or straight up
  
- L. Section 04520 - Masonry
  - 1. Tuckpointing
  - 2. Mortar sample
  
- M. Section 07621 - Sheet Metal
  - 1. Copper at: chimney, slate bibs, drip edge and rain diverter at area E
  - 2. Kynar coated 24 ga. at areas: A and B drip edge, areas G and H counterflashing, eave penetrations.
  
- N. Section 09289 - Plaster
  - 1. Manufacturers
    - a. National Gypsum Company
    - b. United States Gypsum Company
  - 2. **JENNIFER RANKIN INDICATED THAT USAGE OF INTERIOR ROOMS IS FLEXIBLE WHEN NOTICE OF INTERIOR REPAIR SCHEDULE IS GIVEN. NOT ALL ROOMS MAY BE CLOSED FOR REPAIRS AT THE SAME TIME. COORDINATION OF USAGE AND CONSTRUCTION SCHEDULES IS A MUST.**
  
- O. Section 09900 - Painting - To be primed then painted two coats
  
- VI. Toured the facility
  - A. Interior of all rooms where repairs will be made.
  - B. Roof.
  - C. Exterior.
  
- VII. Meeting adjourned at approximately 11:30 a.m.



PRE-BID CONFERENCE

RFQ # 821

Partial Re Roofing + Repairs of Education Bld.

10:00 AM

SIGN-IN SHEET

Name	Company Name & Address	Phone/Fax	E-mail
ARON WALKER	BAKER ROOFING 577 Mercury St. Raleigh NC	P 919 828-2975 F 919 828-9352	awalker@bakerroofing.com
John Willers	Roof Top Syst. Eng'rs	P 919-872-7866 F 919 872-4486	john@rse-pc.com
Adam Cook	11	P 919.500.18578 F	adam@rse-pc.com
DELTON FARMER	City of Rocky Mount	P 252-972-1228 F 252-972-1662	delton.farmer@rockymountnc.gov
BOB BARRY	CITY'S CONSTRUCTION	P 252-523-1078 F 11 0151	Bob@centisc.com
Jennifer Rankin	City of Rocky Mount	P 252-972-1632 F	jennifer.rankin@rockymountnc.gov
		P F	

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## INTERIOR REPAIRS - SCOPE OF WORK

Page 1 of 3

<b>PROJECT:</b> Partial Reroofing and Repairs at the Education Building of the Imperial Centre City of Rocky Mount RFQ #821	<b>DATE:</b> 6-25-2014
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THE SCOPE OF WORK WAS MODIFIED DURING OUR TOUR OF THE INTERIOR OF THE BUILDING FOLLOWING OUR PRE-BID MEETING OF 6-25-14. MR. DAVID GRIFFIN, SUPERINTENDENT, JOINED OUR TOUR. THE SCOPE REVISIONS ARE UNDERLINED.

### ARTS STUDIO 1

1. Scrape and clean the damaged ceiling area, paint the entire ceiling.

### ARTS STUDIO 2:

1. Fill any open joints between the wall, the crown molding, the door trim, and the baseboard.
2. Scrape and clean the crown molding in the east corner of the room, paint all of the crown molding.
3. Remove the damaged plaster above the baseboard, patch the wall where the damaged plaster was removed. Clean and spot paint the area.

### FIBER STUDIO:

1. Scrape and clean the damaged ceiling area, paint the entire ceiling and crown molding.
2. Patch the cracks in the walls. Clean the patched areas and paint all of the walls.
3. Work includes the attached 15'x18'-1" room

### PAINTING / DRAWING STUDIO

1. Scrape and clean the damaged ceiling areas, paint the entire ceiling and crown molding.
2. Scrape and clean the damaged wall areas, paint all of the walls

### DANCE STUDIO:

1. Scrape and clean the damaged ceiling areas, paint the entire ceiling and crown molding.
2. Scrape, clean, and paint all of the crown molding.
3. Scrape and clean the damaged wall areas, paint all of the walls.

### KINDERMUSIK STUDIO:

1. Scrape and clean the damaged ceiling areas, paint the entire ceiling and crown molding.
2. Patch the cracks and holes in all walls. Clean the patched areas and paint all of the walls.

### CERAMIC STUDIO:

1. Patch the cracks in the ceiling, paint the entire ceiling.
2. In the attached 15'-8" x 23'-5" room, repair cracks in the 3 walls and ceiling, paint the 3 walls, ceiling, and one 23'-5" portion of crown molding.

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## INTERIOR REPAIRS - SCOPE OF WORK

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### FRONT HALLWAY (SOUTHEAST END 39'-9"):

1. Remove the damaged plaster.
2. Patch the ceiling where the damaged plaster was removed.
3. Clean the patched areas and paint the entire ceiling.

### FRONT HALLWAY (SEE PHOTOGRAPHS BELOW):

1. Scrape the damaged plaster on the ceiling and wall then patch, paint the patched areas to match.



### REAR HALLWAY:

1. Patch the cracks in the walls.
2. Clean the patched areas and paint all of the walls.

### ENTRY VESTIBULE OFF REAR HALLWAY:

1. Patch cracks and paint the walls and ceiling.

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## Exterior Walls - Typical Conditions to be Repaired

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<b>PROJECT:</b> Partial Reroofing and Repairs at the Education Building of the Imperial Centre City of Rocky Mount RFQ #821 Addendum #1	<b>DATE:</b> 6-25-2014
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The following is a list of typical conditions at exterior walls / features that are to be repaired as a part of the Exterior Masonry Wall Repairs. Example photos of each condition are shown on the following pages.

1. Tuckpoint all vertical joints in the stone window sills (see photos 1 & 2).
2. At all designated lintels above windows and doors, remove the rust from the steel lintels, apply rust inhibiting primer, paint all exposed steel and install backer rod and sealant at the joint between the top of the steel and the bottom of the brick masonry and provide weeps at 3' on center (see photos 3-5).
3. Install sealant at the joint between the stone window sill and the wood window sill (see photos 6 & 7).
4. At the upper stone band (see photos 8-12).
  - a. Tuckpoint all cracked and/or deteriorated vertical joints.
  - b. Tuckpoint all cracked and/or deteriorated horizontal joints above, below and within.
5. At the lower stone band tuckpoint all cracked and/or deteriorated vertical and horizontal joints (see photos 13-16).
6. Tuckpoint select vertical joints in the brick masonry (see photos 17 & 18).
7. Tuckpoint isolated voids in the mortar joints of the brick masonry (see photos 19 & 21).
8. Replace cracked and/or broken brick (see photos 22-24).

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## Exterior Walls - Typical Conditions to be Repaired

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See the attached building plan which shows various portions of the building elevations and see the table below which indicate which of the eight repair types apply to each building elevation.

BUILDING ELEVATION	REPAIR TYPE
W	1-8
S1	1, 4, 5, 6, 7, 8
S2	2, 5, 6, 7, 8
S3	1, 4, 6, 7, 8
S4	1
E1	7
E2	1, 2, 3, 4, 5, 7
N1	1, 2, 3, 5
N2	1, 2, 3, 4 (entablature above columns), 5, 6

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## Exterior Walls - Typical Conditions to be Repaired

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1. Stone sill - vertical joint



2. Stone sill - vertical joint

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## Exterior Walls - Typical Conditions to be Repaired

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3. Lintel above window



4. Lintel above window

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## Exterior Walls - Typical Conditions to be Repaired

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5. Lintel above entry



6. Wood to stone sill

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## Exterior Walls - Typical Conditions to be Repaired

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7. Wood to stone sill



8. Vertical joint in upper stone band

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## Exterior Walls - Typical Conditions to be Repaired

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9. Vertical joint in upper stone band



10. Horizontal joint below upper stone band

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## Exterior Walls - Typical Conditions to be Repaired

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11. Vertical joint in upper stone band and horizontal joint above stone band.



12. Horizontal joint in upper stone band

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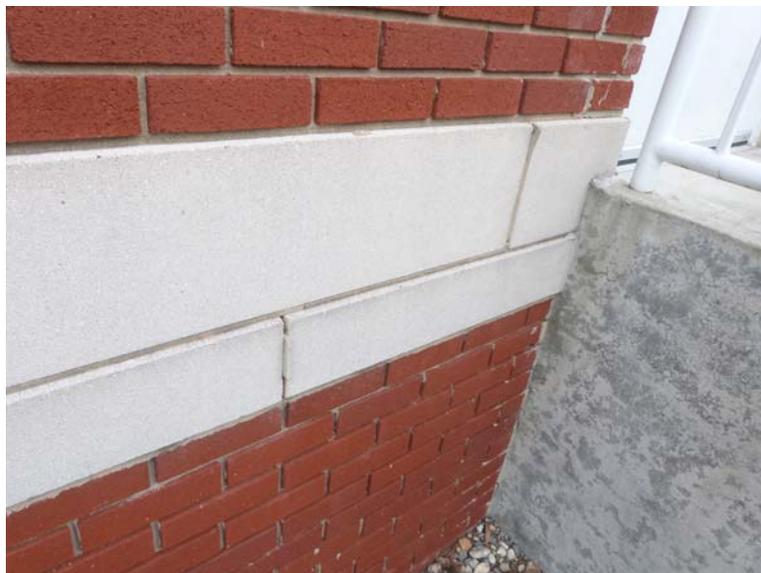
## Exterior Walls - Typical Conditions to be Repaired

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<b>PROJECT:</b> Partial Reroofing and Repairs at the Education Building of the Imperial Centre City of Rocky Mount RFQ #821 Addendum #1	<b>DATE:</b> 6-25-2014
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13. Vertical joint in lower stone band



14. Vertical joint in lower stone band

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## Exterior Walls - Typical Conditions to be Repaired

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15. Vertical joint in lower stone band



16. Vertical joint at lower stone band

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17. Vertical joint in brick



18. Vertical joint in brick

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## Exterior Walls - Typical Conditions to be Repaired

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19. Isolated void in mortar



20. Isolated void in mortar

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21. Isolated voids in mortar



22. Crack through brick courses

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23. Crack through brick courses

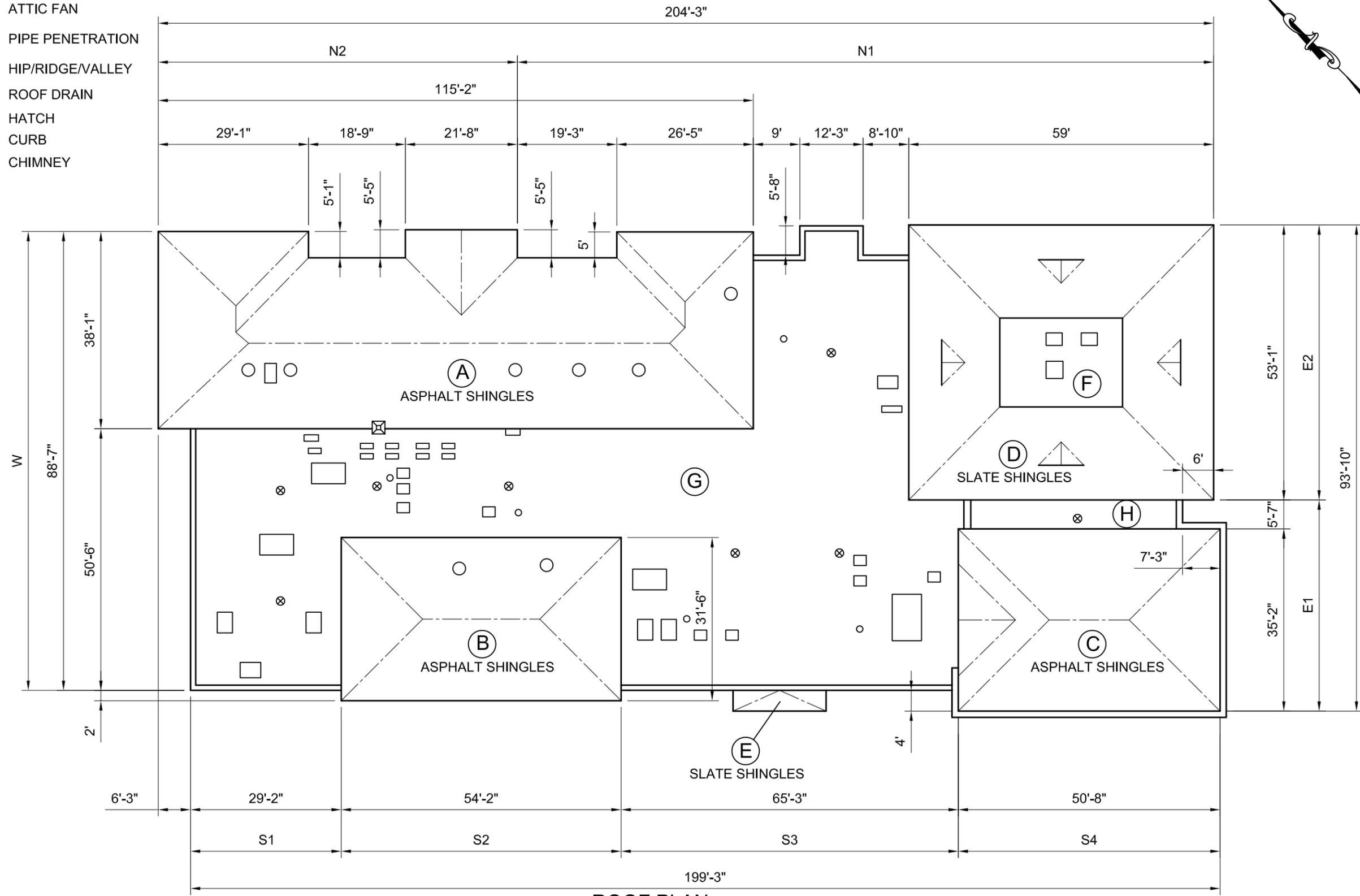


24. Crack through brick courses

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# LEGEND

- ATTIC FAN
- PIPE PENETRATION
- HIP/RIDGE/VALLEY
- ⊗ ROOF DRAIN
- ⊠ HATCH
- ▭ CURB
- ⊞ CHIMNEY



ROOF PLAN



## Roof Plan

EDUCATION BUILDING AT THE IMPERIAL CENTRE  
 CITY OF ROCKY MOUNT  
 270 GAY STREET  
 ROCKY MOUNT, NORTH CAROLINA

ROOFTOP SYSTEMS ENGINEERS, P.C.  
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CHECKED BY:	JW	SCALE:	1"=20'-0"
DATE:	12-17-13	SHEET OF:	1 2..