ADDENDUM No. 2
PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND ADDITION
520 RHODELIA ROAD
PAYNEVILLE, KY 40157
BG #18-283
SCB PROJECT NO. 1569

TO: All Plan Holders

FROM: Sherman-Carter-Barnhart Architects
9300 Shelbyville Road, Suite 502
Louisville, Kentucky 40222

DATE: August 8, 2019

The purpose of this Addendum is to clarify further the requirements of the plans and specifications. The bidders are governed by the information in this Addendum as if included in the plans and specifications. This Addendum does hereby become a part of the Contract Documents. Each bidder shall acknowledge receipt of this Addendum in the space provided in the Bid Form.

This Addendum consists of 31 pages total. (28) 8 ½ x 11 pages and (3) 11 x 17 pages.

General Items

1. Add Bid Package #2. Work to include all work associated with removing and replacing the existing roofing system including, but not limited to wood blocking, coping, gutters, downspouts and new wall panel fascia system. Refer to attached Sketch ADD2.1 and construction documents for all work associated with the existing roof replacement. Attached is a Form of Proposal for Bid Package #2. All bids shall be sealed in an envelope with the following information addressed on the outside of the envelope:

   Bid Documents: Bid Package #2
   Payneville Elementary School Reroof
   Meade County Board of Education
   Brandenburg, Kentucky
   11:00 a.m. local time EST
   Monday, August 19, 2019

2. For clarification, The full set of bidding documents will now be referred to as Bid Package #1. This scope of work shall include the existing roof replacement work. Attached are the revised pages 1 and 2 of the KDE FOP with Bid Package #1 indicated on it. All bids shall be sealed in an envelope with the following information addressed on the outside of the envelope:

   Bid Documents: Bid Package #1
   Payneville Elementary School Addition and Renovation
   Meade County Board of Education
   Brandenburg, Kentucky
   11:00 a.m. local time EST
   Monday, August 19, 2019

Site Items

The following items are submitted for further clarification:

1. Refer to detail AP/SD3.0, layer C. This layer shall be 10" of DGA. OMIT label "#3 stone".
2. Refer to addendum No. 1 for Geotechnical Investigation Report by AEI dated March 2019 and Supplemental Geotechnical Letter by AEI dated May 14, 2019.
3. Refer to DS/SD4.0 Min. overall boot length is 4'.
4. J.R.Hoe is an acceptable equal downspout boot.
5. Refer to detail SHW/SD4.0. Provide Creekstone finish as graphically indicated. Chain link fence is only required on 30" and larger headwalls and the largest headwall on this project is 15".
6. The largest headwall on this project is 15".
7. Refer to sheet DS1.0, tag notes 15 and 16. Playground equipment shall be completely removed from project site for recycling or proper disposal.
8. Refer to sheet SD1.0, tag notes "S", "T" and "CC" which are N.I.C. Intent is for Owner to have new playground equipment, mulch and border installed at a future date, outside this contract.
9. Refer to sheet SD1.0 and attached addendum drawing and increase the area of mill and overlay to include the small parking lot and drive on the northwest end of school as indicated.
10. Refer to detail AP/SD3.0, layer C. This layer shall be 10" of DGA. OMIT label "#3 stone". OMIT references to geotextile/filter fabric in detail AP/SD3.0 as fabric is not required.
11. Reference specification section 321216 Asphalt Paving, Part 2, Item 2.1 Aggregates and Item 4 Asphalt Mixes. Coarse aggregate required in asphalt base shall have nominal, minimal aggregate size of .75 inches compliant with KYTC standard specification section 804.
12. Refer to detail AP/SD3.0 for asphalt paving section for use both on site and in the right of way as indicated by tag "A" on sheet SD1.0.

Structural Items

Refer to attached Structural Addendum No.2.

Architectural Items

Specifications

1. Refer to Volume 2 Specification Section 042000 – UNIT MASONRY, Modify as follows:

    A. Modify "Part 1.2- Summary, A – Section Includes, #9" as follows:
    Replace Calcium Silicate Units" with "Decorative Concrete Masonry Units".

    B. Modify "Part 1.5 – Action Submittals, C. Samples for Initial Selection" as follows:
    Replace "Calcium Silicate Units, in all finishes indicated in construction documents" with "Decorative Concrete Masonry Units".

    C. Modify "Part 2 – Products, 2.2 Concrete Masonry Units" as follows:
    Add Part C. Decorative CMUs: ASTM C 90.
        1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi (14.8 MPa)
        2. Density Classification: Lightweight.

3. Pattern and Texture:
    a. Split-face finish: As selected by Architect from manufacturer's full range of colors and textures.

D. Delete "Part 2.13 Calcium Silicate Masonry Units in its entirety.

2. Refer to Volume 2, Add "Specification Section 0047000 – Cast Stone ADD#1" in its entirety (attached as part of this addendum).

3. Refer to Volume 2, Delete "Specification Section 078100 – Applied Fireproofing" in its entirety.

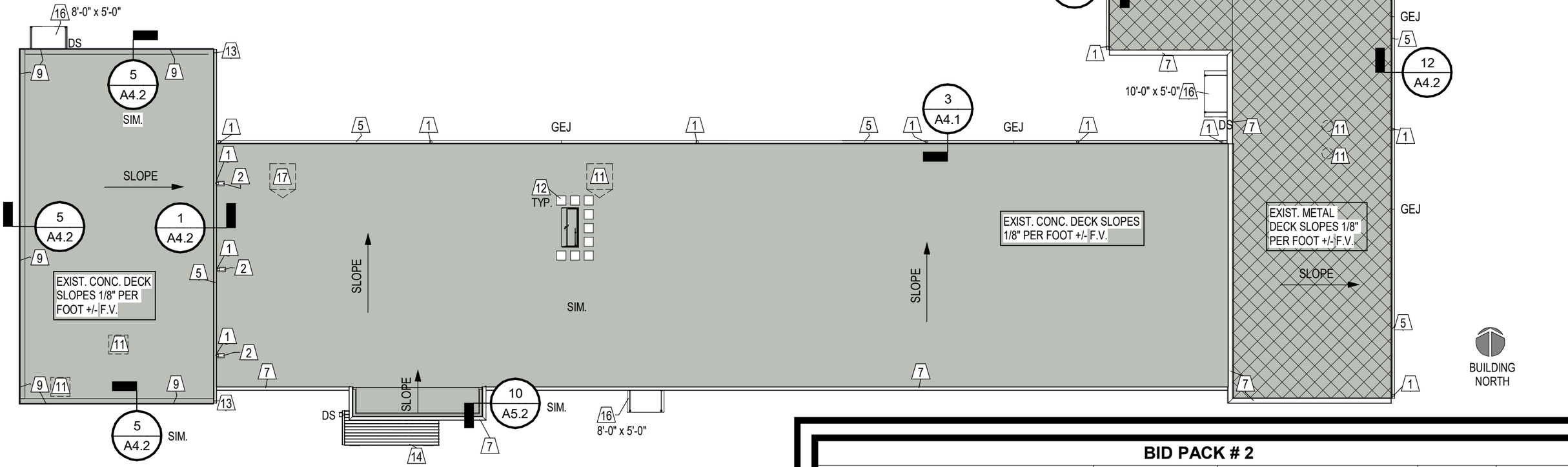
Drawings

1. Refer to sheet A0.0, Modify Wall Type "C" as follows: add weather barrier on rigid insulation.

MEP Items

None.

End of Addendum.



1 ROOF PLAN

3/64" = 1'-0"

BID PACK # 2

JOB NO.	1569	SHEET NO.	ADD2.1
PROJECT NAME	PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND ADDITION	DATE	08/06/19
PROJECT LOCATION	CAMPBELLSVILLE, KY	DRAWN	CTM

SHERMAN CARTER BARNHART ARCHITECTS

KENTUCKY DEPARTMENT OF EDUCATION **FORM OF PROPOSAL**
702 KAR 4:160

BG No. **18-283**

Date: _____ To: (Owner) Meade County Board Education

Project Name: Payneville Elementary School Reroof Bid Package No. #2

City, County: _____

Name of Contractor: _____

Mailing Address: _____

Business Address: _____Telephone:_____

Having carefully examined the Instructions to Bidders, Contract Agreement, General Conditions, Supplemental Conditions, Specifications, and Drawings, for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein.

Addendum _____ (Insert the addendum numbers received or the word "none" if no addendum received.)

BASE BID: For the construction required to complete the work, in accordance with the contract documents, I/We submit the following lump sum price of:

_____
Use Figures

_____ Dollars & _____Cents
Use Words for both dollars and cents

ALTERNATE BIDS: (If applicable and denoted in the Bidding Documents)

For omission from or addition to those items, services, or construction specified in Bidding Documents by alternate number, the following lump sum price will be added or deducted from the base bid.

Alternate Bid No.	Alternate Description	+ (Add to the Base Bid)	- (Deduct from the Base Bid)	No Cost Change (from the Base Bid)
Alt. Bid No. 1	**N/A**			
Alt. Bid No. 2	**N/A**			
Alt. Bid No. 3	**N/A**			
Alt. Bid No. 4	**N/A**			
Alt. Bid No. 5	**N/A**			
Alt. Bid No. 6	**N/A**			
Alt. Bid No. 7	**N/A**			
Alt. Bid No. 8	**N/A**			
Alt. Bid No. 9	**N/A**			
Alt. Bid No. 10	**N/A**			

A maximum of 10 Alternate Bids will be acceptable with each Base Bid. Do not add supplemental sheets for Alternate Bids to this document.

LIST OF PROPOSED SUBCONTRACTORS:

List on the lines below each major branch of work and the subcontractor involved with that portion of work. If the branch of work is to be done by the Contractor, so indicate.

The listing of more than one subcontractor in a work category shall invalidate the bid.

The listing of the bidder as the subcontractor for a work category certifies that the bidder has in current employment, skilled staff and necessary equipment to complete that category. The architect/engineer will evaluate the ability of all listed subcontractors to complete the work and notify the owner. Listing of the bidder as the subcontractor may invalidate the bid should the architect's review indicate bidder does not have skilled staff and equipment to complete the work category at the time the bid was submitted.

A maximum of 40 subcontractors will be acceptable with each bid. Do not add supplemental sheets for subcontractors to this document.

The bidder shall submit the list of subcontractors with the bid.

	BRANCH OF WORK (to be filled out by the Architect)	**SUBCONTRACTOR** (to be filled out by the contractor)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

	BRANCH OF WORK (to be filled out by the Architect)	**SUBCONTRACTOR** (to be filled out by the Contractor)
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		
26.		
27.		
28.		
29.		
30.		
31.		
32.		
33.		
34.		
35.		
36.		
37.		
38.		
39.		
40.		

LIST OF PROPOSED SUPPLIERS AND MANUFACTURERS:

List on the lines below each major material category for this project and the suppliers and manufacturers involved with that portion of work. Listing the supplier below means the Contractor is acknowledging authorization from the Supplier to include the Supplier in this bid.

The listing of more than one supplier or manufacturer in a material category shall invalidate the bid.

A maximum of 40 suppliers and manufacturers will be acceptable with each bid. Do not add supplemental sheets for suppliers to this document.

The bidder shall submit the list of suppliers and manufacturers within one (1) hour of the bid.

	MATERIAL DESCRIPTION BY SPECIFICATION DIVISION AND CATEGORY (to be filled out by the Architect or Contractor)	**SUPPLIER** (to be filled out by the Contractor)	**MANUFACTURER** (to be filled out by the Contractor)
1.	Division 075700 – Coated Foamed Roofing System		
2.	Division 074213.10 - Preformed Metal Modular Panel Wall System		
3.	Division 077200 – Roof Hatch		
4.	Division 055000 – Industrial Stair and Roof Ladders		
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

	MATERIAL DESCRIPTION BY SPECIFICATION DIVISION AND CATEGORY (to be filled out by the Architect or Contractor)	**SUPPLIER** (to be filled out by the Contractor)	**MANUFACTURER** (to be filled out by the Contractor)
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			
31.			
32.			
33.			
34.			
35.			
36.			
37.			
38.			
39.			
40.			

UNIT PRICES:

Indicate on the lines below those unit prices to determine any adjustment to the contract price due to changes in work or extra work performed under this contract. The unit prices shall include the furnishing of all labor and materials, cost of all items, and overhead and profit for the Contractor, as well as any subcontractor involved. These unit prices shall be listed in units of work.

A maximum of 40 unit prices will be acceptable with each bid. Do not add supplemental sheets for unit pricing to this document.

The bidder shall submit the list of unit prices within one (1) hour of the bid.

	WORK (to be filled out by the Architect)	**PRICE / UNIT** (to be filled out by the Contractor)	**UNIT** (to be filled out by the Contractor)
1.	Polyurethane Spray Insulation (1" thick per s.f.) installed		
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			

	WORK (to be filled out by the Architect)	**PRICE / UNIT** (to be filled out by the Contractor)	**UNIT** (to be filled out by the Contractor)
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			
31.			
32.			
33.			
34.			
35.			
36.			
37.			
38.			
39.			
40.			

DIRECT MATERIAL PURCHASES:

Indicate on the lines below those materials to be purchased directly by the Owner with a Purchase Order to be issued by the Owner to the individual suppliers. The value of the direct Purchase Order cannot be less than $5,000. Following the approval of bids, the Contractor shall formalize this list by completing and submitting the electronic Purchase Order Summary Form provided by KDE. Listing the supplier below means the Contractor is acknowledging authorization from the Supplier to include the Supplier in this bid.

A maximum of 50 POs will be acceptable with each bid. Do not add supplemental sheets for additional POs to this document.

The bidder shall submit the list of Purchase Orders within four (4) days of the bid.

	SUPPLIER (to be filled out by the Contractor)	**PURCHASE ORDER DESCRIPTION** (to be filled out by the Contractor)	**PURCHASE ORDER AMT.** (to be filled out by the Contractor)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			

	SUPPLIER (to be filled out by the Contractor)	**PURCHASE ORDER DESCRIPTION** (to be filled out by the Contractor)	**PURCHASE ORDER AMT.** (to be filled out by the Contractor)
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			
29.			
30.			
31.			
32.			
33.			
34.			
35.			
36.			
37.			
38.			
39.			
40.			
41.			
42.			
43.			
44.			

	SUPPLIER (to be filled out by the Contractor)	**PURCHASE ORDER DESCRIPTION** (to be filled out by the Contractor)	**PURCHASE ORDER AMT.** (to be filled out by the Contractor)
45.			
46.			
47.			
48.			
49.			
50.			

TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS:

In the event that a bidder's proposal is accepted by the Owner and such bidder should fail to execute the contract within ten (10) consecutive days from the date of notification of the awarding of the contract, the Owner, at his option, may determine that the awardee has abandoned the contract. The bidder's proposal shall then become null and void, and the bid bond or certified check which accompanied it shall be forfeited to and become the property of the Owner as liquidated damages for failure to execute the contract.

The bidder hereby agrees that failure to submit herein above all required information and/or prices can cause disqualification of this proposal.

Submitted by:

NAME OF CONTRACTOR / BIDDER: _____

AUTHORIZED REPRESENTATIVE'S NAME:_____
Signature

AUTHORIZED REPRESENTATIVE'S NAME(printed): _____

AUTHORIZED REPRESENTATIVE'S TITLE: _____

NOTICE: Bid security must accompany this proposal if the Base Bid price is greater than ~~of $25,000.~~ $100,000. (change effective June 3, 2019.)

This form shall not be modified.

BG No. 18-283

Date: _____ To: (Owner) Meade County Board of Education

Project Name: Payneville Elementary School Renovation and Addition Bid Package No. #1

City, County: Brandenburg, Meade

Name of Contractor: _____

Mailing Address:

_____

Business Address:

_____Telephone:_____

E-mail Address:_____

Fax:_____

Having carefully examined the Instructions to Bidders, Contract Agreement, General Conditions, Supplemental Conditions, Specifications, and Drawings, for the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein.

Addendum _____ (Insert the addendum numbers received or the word "none" if no addendum received.)

BASE BID: For the construction required to complete the work, in accordance with the contract documents, I/We submit the following lump sum price of:

_____
Use Figures

_____ Dollars & _____Cents
Use Words Use Words

ALTERNATE BIDS: (If applicable and denoted in the Bidding Documents)

For omission from or addition to those items, services, or construction specified in Bidding Documents by alternate number, the following lump sum price will be added or deducted from the base bid.

Alternate Bid No.	**Alternate Description**	**+ (Add to the Base Bid)**	**- (Deduct from the Base Bid)**	**No Cost Change** from the Base Bid)
Alt. Bid No. 1	Aluminum window replacement at 1998 & 1999 portion of building			☐
Alt. Bid No. 2	Owner preferred Door Hardware Manufacturer			☐
Alt. Bid No. 3	Work in Right of Way at Rhodelia Road KY Route 144			☐
Alt. Bid No. 4	Remove existing VCT in corridor and provide new VCT floor pattern per Sheet A8.2			☐

Alt. Bid No. 5	Remove existing VCT in cafeteria and provide new VCT pattern per Sheet A8.2			☐
Alt. Bid No. 6	Paint Existing Corridors			☐
Alt. Bid No. 7	Owner preferred Lighting Manufacturer			☐
Alt. Bid No. 8	Owner preferred Electrical Manufacturer			☐
Alt. Bid No. 9	Owner preferred Plumbing (faucets only) Manufacturer			☐
Alt. Bid No. 10	Owner preferred Mechanical Equipment & Controls			☐

A maximum of 10 Alternate Bids will be acceptable with each Base Bid. Do not add supplemental sheets for Alternate Bids to this document.

Meade County Schools
Payneville Elementary School Renovation and Addition
STRUCTURAL ADDENDUM ITEMS
Addendum No. 2

A. Item – Specification Section 061920

Add SECTION 061920 – METAL PLATE CONNECTED WOOD TRUSSES to the Project Specifications. This SPECIFICATION applies to the PUMP HOUSE Roof Structure.

B. Item – Drawing S6.1

Add TYPICAL DETAIL G/S6.1 for NEW OPENINGS in Existing Metal Roof Deck per SKETCH SK6.1A

C. Item – Drawing S7.1

The orientation of the NEW PUMP HOUSE shall be as indicated on the SITE DRAWINGS.

D. Item – Drawing S7.1

Revise SECTION 1/S7.1 per attached SKETCH SK7.1A to agree with the Eave Condition indicated on ARCHITECTURAL.

SECTION 061920 – METAL PLATE CONNECTED WOOD TRUSSES – PUMP HOUSE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to work of this section.

B. See Drawing for Wood Structural Notes, which form a part of this specification.

1.2 SUMMARY

A. Extent and configuration of prefabricated wood trusses is indicated on drawings.

B. Types of prefabricated wood trusses include:

1. Gabled Shape Trusses

C. Fabricator shall provide engineered design to satisfy loading requirements indicated on drawings.

1. Dead Loads of all concentrated loads shall be added to truss loads and reflected in their design. Specific maximum weight shall be furnished from all subcontractors coordinated through the General Contractor.

D. Floor and Roof sheathing are specified in Section 061000.

1.3 DEFINITIONS

A. Prefabricated wood trusses include planer structural units consisting of metal plate connected members which are fabricated from dimension lumber and which have been cut and assembled prior to delivery to the project site.

1.4 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide cold-formed metal framing capable of withstanding design loads within limits and under conditions indicated.

1. Design Loads: As specified on the Drawings
   a. Snow Loads: Per ASCE 7-10, "Minimum Design Loads for Buildings"
   b. Wind Loads: Per Kentucky Building Code 2013 (KBC)
   c. Seismic Loads: Per Kentucky Building Code 2013 (KBC)

2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
   a. Roof Trusses: Vertical deflection of 1/360 of the span under Live Load and 1/240 of the span under Total Load.
   b. Overlay Roof Framing: Vertical deflection of 1/360 of the horizontally projected span under Live Load.
   c. Floor Trusses: Vertical deflection of 1/360 of the span under Live Load and 1/240 of the span under Total Load.

1.5 SUBMITTALS

A. Product Data: Submit fabricator's technical data covering lumber, metal plates, hardware, fabrication process, treatment (if any), handling erection.

1. Submit certificate, signed by an officer of fabricating firm, indicating that trusses to be supplied for project comply with indicated requirements.

B. Shop Drawings: Submit shop drawings showing species, sizes, and stress grades of lumber to be used; pitch, span, camber, configuration and spacing for each type of truss required; type, size, material, finish, design values, location of metal connector plates; and bearing and anchorage details.

1. To the extent engineering design considerations are indicated as fabricator's responsibility, submit design analysis and test reports indicating loading, section modulus, assumed allowable stress, stress diagrams and calculations, and similar information needed for analysis and to ensure that trusses comply with requirements.
2. Provide shop drawings which have been signed and stamped by a structural engineer licensed to practice in the State of Kentucky.

1.6 QUALITY ASSURANCE

A. TPI Standards: Comply with applicable requirements and recommendations of the following Truss Plate Institute (TPI) publications:

1. "Design Specification for Metal Plate Connected Wood Trusses".
2. "Commentary and Recommendations for Handling and Erecting Wood Trusses".
3. "Commentary and Recommendations for Bracing Wood Trusses".
4. Quality Standard for Metal Plate Connected Wood Trusses".

B. Wood Structural Design Standard: Comply with applicable requirements of "National Design Specifications for Wood Construction" published by NFPA.

C. Connector Plate Manufacturer's Qualifications: Provide truss connector plates manufactured by a firm which is a member of TPI and which complies with TPI quality control procedures for manufacture of connector plates published in TPI "Quality Standard for Metal Plate Connected Wood Trusses".

D. Fabricator's Qualifications: Provide trusses by a firm which has a record of successfully fabricating trusses similar to type indicated.

E. Single Source Responsibility for Connector Plates: Provide metal connector plates from a single manufacturer.

1.7 DELIVERY, STORAGE AND HANDLING:

A. Handle and store trusses with care, and in accordance with manufacturer's instructions and TPI recommendations to avoid damage from bending, overturning or other cause for which truss is not designed to resist or endure.

B. Time delivery and erection of trusses to avoid extended on-site storage and to avoid delaying work of other trades whose work must follow erection of trusses.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide metal connector plates of one of the following:

1. Alpine Engineered Products, Inc.
2. Gang Nail Systems, Inc.
3. Truss Connectors of America.
4. Truswal Systems Corp.

2.2 LUMBER

A. Factory mark each piece of lumber with type, grade, mill and grading agency.

B. Lumber Standard: Manufacture lumber to comply with PS 20 "American Softwood Lumber Standard" and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Board of Review.

C. Inspection Agencies: Inspection agencies and the abbreviations used to reference them to lumber grades and species include the following:

1. SPIB - Southern Pine Inspection Bureau.
2. WWPA - Western Wood Products Association.

D. Provide lumber manufactured to actual sizes required by PS 20 to comply with requirements,indicated below:

1. Dressed, S4S, unless otherwise indicated.

2.3 METAL CONNECTOR PLATES, FASTENERS AND ANCHORAGES

A. Connector Plates: Fabricate connector plates from metal complying with the following requirements:

1. Hot dipped galvanized steel sheet: Structural (physical) quality steel sheet complying with ASTM A 446, Grade A; zinc coated by hot-dip process to comply with ASTM A525, Designation G60; minimum coated metal thickness indicated but not less than 0.036".

B. Fasteners and Anchorages: Provide size, type, material and finish indicated for nails, screws, bolts, nuts, washers and other anchoring devices.

2.4 FABRICATION

A. Cut truss members to accurate lengths, angles and sizes to produce close fitting joints with wood-to-wood bearing in assembled units.

B. Fabricate metal connector plates to size, configuration, thickness and anchorage details required for types of joint designs indicated.

C. Assemble truss members in design configuration indicated using jigs or other means to ensure uniformity and accuracy of assembly with close fitting joints. Position members to produce design camber indicated.

D. Connect truss members by means of metal connector plates accurately located and

securely fastened to each side of wood members by means indicated or approved.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Erect and brace trusses to comply with recommendations of manufacturer and Truss Plate Institute.

B. Erect trusses with plane of truss webs vertical (plumb) and parallel to each other, located accurately at design spacings indicated.

C. Hoist units in place by means of lifting equipment suited to sizes and types of trusses required, applied at designated lift points as recommended by fabricator, exercising care not to damage truss members or joints by out-of-plane bending or other causes.

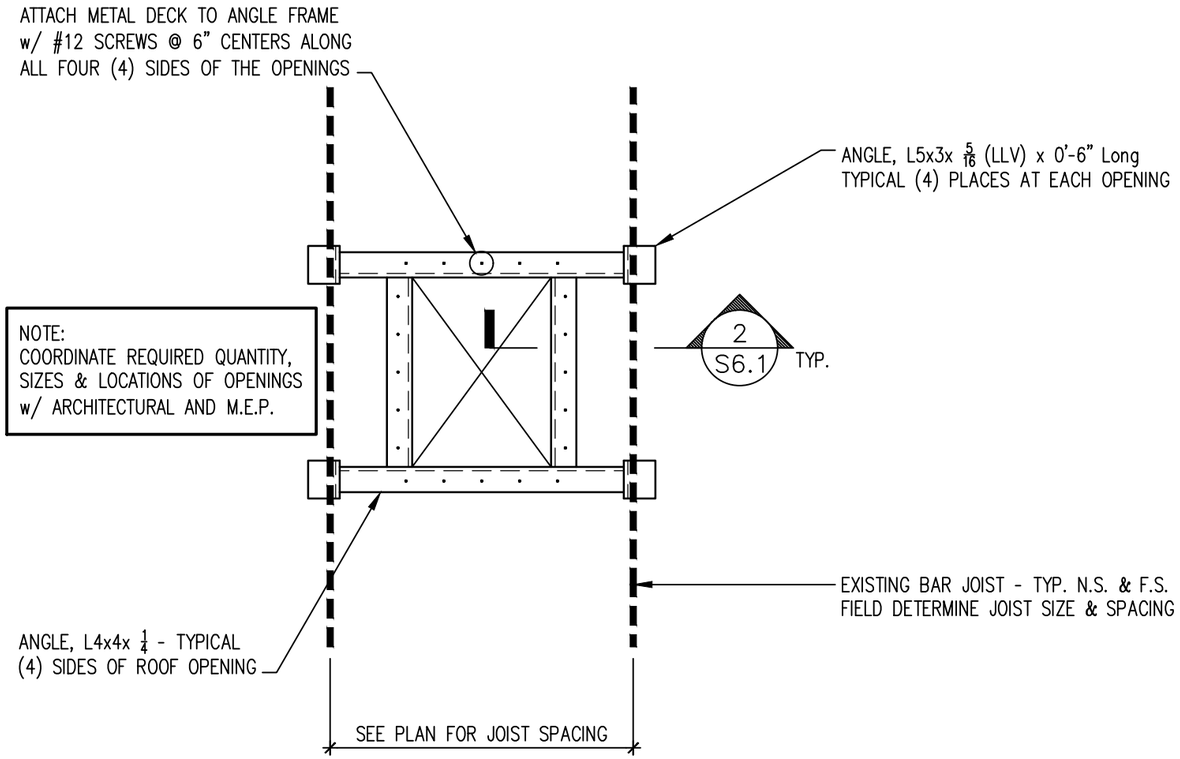
D. Provide temporary bracing as required to maintain trusses plumb, parallel and in location indicated, until permanent bracing is installed.

E. Anchor trusses securely at all bearing points to comply with methods and details indicated.

F. Install permanent bracing and related components to enable trusses to maintain design spacing, withstand live and dead loads including lateral loads and to comply with other indicated requirements.

G. Do not cut or remove truss members.

END OF SECTION 061920

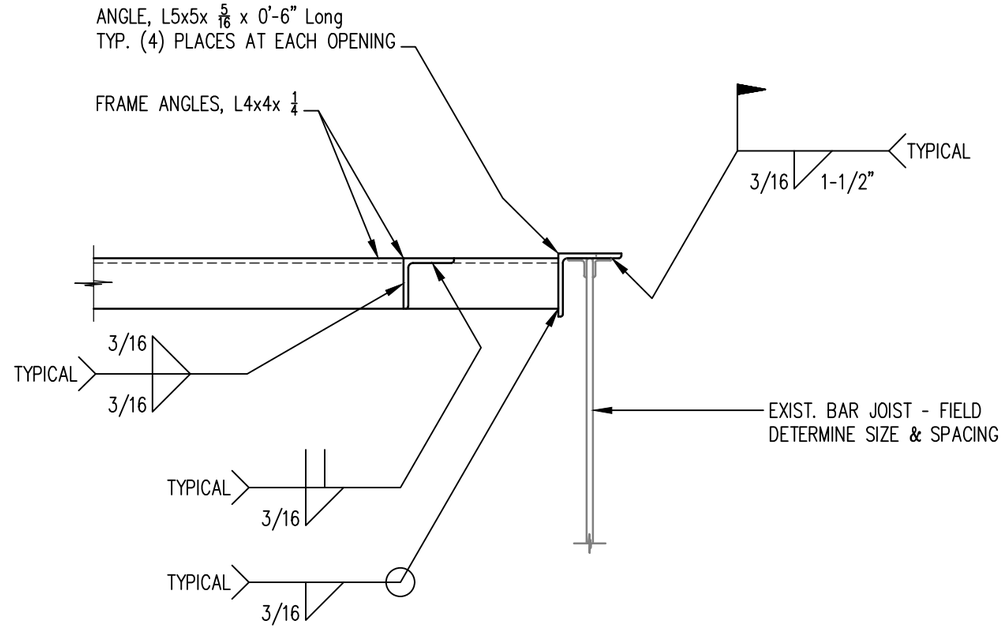


ANGLE FRAME FOR OPENINGS IN METAL ROOF DECK

TYPICAL DETAIL

SCALE: 1/2" = 1'-0"

G / S6.1



SECTION

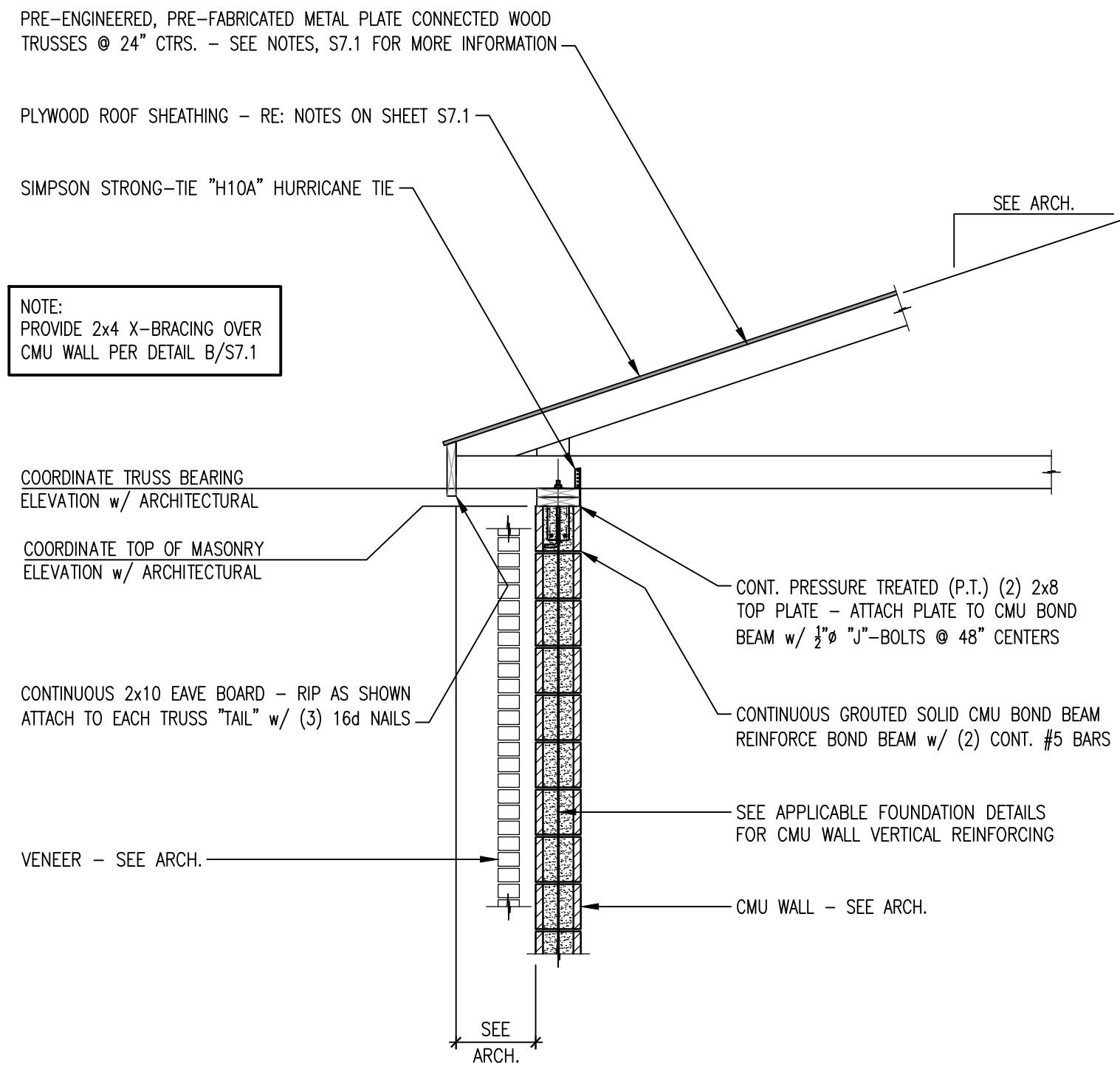
SCALE: 1" = 1'-0"

2 / S6.1

ADDENDUM No. 2

SHERMAN CARTER BARNHART ARCHITECTS

JOB NO.	1569
PROJECT NAME	PAYNEVILLE ELEMENTARY RENOVATION AND ADDITION
PROJECT LOCATION	PAYNEVILLE, KENTUCKY
DRAWN	griggs
DATE	08/08/19
SHEET NO.	SK6.1A



SECTION

SCALE: 1/2" = 1'-0"

1 / S7.1

ADDENDUM No. 2

SHERMAN CARTER BARNHART ARCHITECTS	JOB NO.	1569	SHEET NO.	SK7.1A
	PROJECT NAME	PAYNEVILLE ELEMENTARY RENOVATION AND ADDITION	DATE	08/08/19
	PROJECT LOCATION	PAYNEVILLE, KENTUCKY	DRAWN	griggs

SECTION 047200 - CAST STONE ADD #2

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. Cast stone caps and accents.

B. Related Sections include the following:

1. Division 4 Section "Unit Masonry" for installing cast stone units in unit masonry.

1.3 DEFINITIONS

A. Cast Stone: Architectural precast concrete building units intended to simulate natural cut stone.

1.4 SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for cast stone units.

B. Shop Drawings: Show fabrication and installation details for cast stone units. Include dimensions; details of reinforcement and anchorages, if any; and indication of finished faces.

1. Include building elevations showing layout of units and locations of joints and anchors.

C. Samples: For each color and texture of cast stone required, 10 inches (250 mm) square in size.

D. Samples for Initial Selection: For colored mortar, showing the full range of colors available.

E. Samples for Verification: For each mortar color required, showing the full range expected in the finished construction. Make samples using the same sand and mortar ingredients to be used on Project. Label samples to indicate type and amount of colorant used.

F. Full-Size Samples: For each type of cast stone unit required. Make available for Architect's review at Project site before installing cast stone.

1. Approved Samples may be installed in the Work.

G. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project

names and addresses, names and addresses of architects and owners, and other information specified.

1. Include copies of material test reports for completed projects, indicating compliance of cast stone with ASTM C 1364.

H. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of cast stone with requirements indicated.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing cast stone units similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to manufacture required units.

B. Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.

C. Source Limitations for Cast Stone: Obtain cast stone units through one source from a single manufacturer.

D. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color, from one manufacturer for each cementitious component and from one source or producer for each aggregate.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Pack, handle, and ship cast stone units in suitable packs or pallets.

1. Lift with wide-belt slings; do not use wire rope or ropes that might cause staining. Move cast stone units, if required, using dollies with wood supports.
2. Store cast stone units on wood skids or pallets with nonstaining, waterproof covers. Arrange to distribute weight evenly and to prevent damage to units. Ventilate under covers to prevent condensation.

B. Store installation materials on elevated platforms, under cover, and in a dry location.

C. Store mortar aggregates where grading and other required characteristics can be maintained and contamination avoided.

1.7 COORDINATION

A. Coordinate production and delivery of cast stone with unit masonry work to minimize the need for on-site storage and to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis for design: Rockcast by Reading Rock, Inc., 4600 Devitt Drive Cincinnati, Ohio 45246.

B. Subject to compliance with requirements, cast stone shall equal or exceed the physical and performance properties outlined below. Manufacturers wishing to be approved as equal shall do so in writing to the Architect (fax to 502-721-6111). Provide any written information deemed necessary to prove product's equality.

C. Approved manufacturers:

1. Advanced Cast Stone
2. ACCI – Tannerstone
3. MarcStone
4. Custom Cast Stone, Inc.: Custom Series, Semi-Custom Series; and Standard Unit
5. Capital Cast Stone

2.2 CAST STONE MATERIALS

A. General: Comply with ASTM C 1364 and the following:

B. Portland Cement: ASTM C 150, Type I, containing not more than 0.60 percent total alkali when tested according to ASTM C 114.

C. Coarse Aggregates: Granite, quartz, or limestone complying with ASTM C 33; gradation as needed to produce required textures.

D. Fine Aggregates: Manufactured or natural sands complying with ASTM C 33, gradation as needed to produce required textures.

E. Air-Entraining Admixture: ASTM C 260, certified by the manufacturer to be compatible with other admixtures used.

1. Add to mixes for units exposed to the exterior at manufacturer's prescribed rate to result in an air content of 5 to 7 percent.

F. Reinforcement: Deformed steel bars complying with ASTM A 615/A 615M.

1. Epoxy Coating: ASTM A 775/A 775M.
2. Galvanized Coating: ASTM A 767/A 767M.

G. Embedded Anchors and Other Inserts: Fabricated from stainless steel complying with ASTM A 276 or ASTM A 666, Type 304.

H. Embedded Anchors and Other Inserts: Fabricated from steel complying with ASTM A 36/A 36M, and hot-dip galvanized to comply with ASTM A 123.

2.3 CAST STONE UNITS

A. Provide Custom Cast stone units complying with ASTM C 1364. Provide Architectural units complying with ASTM C90.

1. Provide units that are resistant to freezing and thawing as determined by laboratory testing according to ASTM C 666, Procedure A, as modified by ASTM C 1364.

B. Reinforce units as indicated and as required by ASTM C 1364. Use galvanized or epoxy-coated reinforcement when covered with less than 1-1/2 inches (38 mm) of material.

C. Fabricate units with sharp arris and details accurately reproduced with indicated texture on all exposed surfaces, unless otherwise indicated.

1. Slope exposed horizontal surfaces at least 1:12, unless otherwise indicated.
2. Provide raised fillets at backs of sills and at ends indicated to be built into jambs.
3. Provide drips on projecting elements, unless otherwise indicated.

D. Cure and finish units as follows:

1. Cure units in totally enclosed curing room under dense fog and water spray at 95 percent relative humidity for 24 hours.
2. Yard cure units until the sum of the mean daily temperatures for each day equals or exceeds 350 deg F.
3. Acid etch units to remove cement film from surfaces indicated to be finished.

E. Colors: Color to be selected by Architect from manufacturer’s standard colors.

F. Textures: Texture to be selected by Architect from manufacturer’s standard colors.

G. Sizes:

1. Caps and Accents: Dimensions per Drawings

2.4 MORTAR MATERIALS

A. Provide mortar materials that comply with Division 4 Section "Unit Masonry."

B. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color, white, or a blend to produce mortar color to match stone.

C. Water: Potable.

2.5 ACCESSORIES

A. Anchors: Type and size indicated, fabricated from steel complying with ASTM A 36/A 36M, and hot-dip galvanized to comply with ASTM A 123.

B. Job-Mixed Detergent Solution: Solution of 1/2 cup (125 mL) of dry-measure tetrasodium polyphosphate and 1/2 cup (125 mL) of dry-measure laundry detergent dissolved in 1 gal. (4 L) of water.

C. Proprietary Acidic Cleaner: Manufacturer's standard-strength, general-purpose cleaner designed for removing mortar/grout stains, efflorescence, and other construction stains from new masonry surfaces without discoloring or damaging masonry surfaces; expressly approved

for intended use by cast stone manufacturer and expressly approved by cleaner manufacturer for use on cast stone and adjacent masonry materials.

1. Available Products: Subject to compliance with requirements, products that may be used to clean unit masonry surfaces include, but are not limited to, the following:
2. Products: Subject to compliance with requirements, provide one of the following:
   a. Sure Klean No. 600 Detergent; ProSoCo, Inc.
   b. Sure Klean Vana Trol; ProSoCo, Inc.

2.6 MORTAR MIXES

A. Comply with requirements in Division 4 Section "Unit Masonry" for mortar mixes.

B. Setting Mortar: Comply with ASTM C 270, Proportion Specification, Type S.

1. Limit cementitious materials to portland cement and lime.
2. Pigmented Mortar: Select and proportion pigments with other ingredients to produce color required. Do not exceed pigment-to-cement ratio of 1:10, by weight.
3. Packaged Portland Cement-Lime Mix Mortar: Use portland cement-lime mix of selected color.
4. Mortar Cement Mortar: Use mortar cement of selected color.
5. Masonry Cement Mortar: Use masonry cement of selected color.
6. Colored-Aggregate Mortar: Produce color required by combining colored aggregates with portland cement of selected color.

2.7 SOURCE QUALITY CONTROL

A. Employ an independent testing agency to sample and test cast stone units according to ASTM C 1364.

1. Include testing for freezing and thawing resistance.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of cast stone.

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

3.2 INSTALLATION

A. Install cast stone units to comply with requirements in Division 4 Section "Unit Masonry" for installing stone units.

B. Set cast stone as indicated on Drawings. Install anchors, supports, fasteners, and other attachments indicated or necessary to secure units in place. Set units accurately in locations

indicated with edges and faces aligned according to established relationships and indicated tolerances.

C. Drench units with clear water just before setting.

D. Set units in full bed of mortar with full head joints, unless otherwise indicated. Build anchors and ties into mortar joints as units are set.

1. Fill dowel holes and anchor slots with mortar.
2. Fill collar joint solid as units are set.
3. Build concealed flashing into mortar joints as units are set.
4. Leave head joints open in coping and other units with exposed horizontal surfaces. Keep joints clear of mortar, and rake out to receive sealant.

E. Rake out joints for pointing with mortar to depths of not less than 3/4 inch (19 mm). Rake joints to uniform depths with square bottoms and clean sides. Scrub faces of units to remove excess mortar as joints are raked.

F. Point mortar joints by placing and compacting mortar in layers not greater than 3/8 inch (10 mm). Compact each layer thoroughly and allow to become thumbprint hard before applying next layer.

G. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness, unless otherwise indicated.

H. Provide expansion, control, and pressure-relieving joints of widths and at locations indicated.

1. Sealing joints is specified in Division 7 Section "Joint Sealants."
2. Keep joints free of mortar and other rigid materials.

3.3 INSTALLATION TOLERANCES

A. Variation from Plumb: Do not exceed 1/8 inch in 10 feet (3 mm in 3 m) or 1/4 inch in 20 feet (6 mm in 6 m) or more.

B. Variation from Level: Do not exceed 1/8 inch in 10 feet (3 mm in 3 m), 1/4 inch in 20 feet (6 mm in 6 m), or 3/8 inch (9 mm) maximum.

C. Variation in Joint Width: Do not vary joint thickness more than 1/8 inch in 36 inches (3 mm in 900 mm) or one-fourth of nominal joint width, whichever is less.

D. Variation in Plane between Adjacent Surfaces (Lipping): Do not exceed 1/16-inch (1.5-mm) difference between planes of adjacent units or adjacent surfaces indicated to be flush with units.

3.4 ADJUSTING AND CLEANING

A. Remove and replace stained and otherwise damaged units and units not matching approved Samples. Cast stone may be repaired if methods and results are approved by Architect.

B. Replace units in a manner that results in cast stone matching approved Samples, complying with other requirements, and showing no evidence of replacement.

C. In-Progress Cleaning: Clean cast stone as work progresses. Remove mortar fins and smears before tooling joints.

D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed cast stone as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Protect adjacent surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.
3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing thoroughly with clear water.
4. Clean cast stone by bucket and brush hand-cleaning method described in BIA Technical Notes No. 20 Revised II, using job-mixed detergent solution.
5. Clean cast stone with proprietary acidic cleaner applied according to manufacturer's written instructions.

END OF SECTION 047200