

State of Delaware  
Kent County Family Court – Brick Walk  
Bid Documents  
Architects & Engineers of Record: StudioJAED

ADDENDUM #2  
Page 1  
Project No. 15062  
March 24, 2016

March 24, 2016

TO ALL CONTRACT BIDDERS:

**RE: ADDENDUM NO. 2  
KENT COUNTY FAMILY COURT – BRICK WALK  
STATE OF DELAWARE, PROJECT # 15062  
BID # MC1002000316**

Ladies and Gentlemen:

Enclosed please find Addendum No. 1 for the above-referenced project. The inclusion of an executed Addendum in the bid package is mandatory for a bid to be considered. Please review the item(s) listed on the addendum and bid accordingly.

Sincerely,

A handwritten signature in cursive script, appearing to read "David T. Spangler".

David T. Spangler, PE  
Project Manager  
StudioJAED Architects & Engineers

Enclosures

cc: Chip Lieber, OMB

**Addendum #1 issued by:  
StudioJAED Architects & Engineers  
2500 Wrangle Hill Rd.  
Fox Run Office Plaza  
Suite 110  
Bear, Delaware 19701**

***Notice to holders of bidding Documents:***

This Addendum is generally separated into sections for convenience; however, all Contractors, Subcontractors, Material Men and other parties shall be responsible for reading the entire Addendum. The failure to list an item or items in all affected sections of this Addendum does not relieve any party affected from performing as per instructions; provided the information is set forth one time in the Addendum.

These documents shall become attached to and become a part of the construction contract for this project.

**GENERAL:**

1. See attached copy of Pre-bid Sign-in Sheet for the list of attendees at the March 23, 2016 Pre-bid Meeting. The pre-bid meeting was a mandatory pre-requisite for submitting a bid on this project. Mr. David Spangler was in attendance representing StudioJAED, and Mr. Chip Lieber was in attendance representing Delaware OMB as well.
2. See attached Pre-bid Meeting notes.
3. With respect to the subcontractors list in the bid form, (**IMPORTANT**) make sure that there is a contractor listed for each of the subcontractor categories. If a prime bidder is performing the work of one or more subcontracting categories, they are to list themselves in the applicable subcontracting categories.
4. While aggregate bases are not expected to exist under any of the sidewalks to be demolished and reconstructed, where aggregate bases do exist, the Owner reserves the right to compaction test the aggregate bases prior to overlay of setting bed and pavers to ensure the bases are adequately compacted.

**RFI RESPONSES:**

1. **Question: Is it required to submit ICPI certification with the bid?**  
**Response: Yes, bidders are required to submit their Interlocking Concrete Pavement Institute Concrete Paver Installer Certification (ICPI) with their bids.**

**CLARIFICATIONS:**

1. Please note the following received from the Owner for clarifications on who does and does not need to submit to drug testing policies as noted in the bid documents:

- a. As defined by the policy, “Subcontractor” means an entity such as, but not limited to, an individual, firm, partnership or corporation that has a contractual obligation to perform work for, or supply services to a Contractor as defined in section 2.1.
- b. It appears that policies for the contractor and only listed subcontractors must be submitted prior to contract execution, however, if any additional subcontractors are to be included in the project, they too must submit copies of their Drug Testing Program and it must be verified as in compliance prior to the start of their work on site. (See below)
- c. 3.1.3 During contract execution – Contractors that employ additional Subcontractors on the jobsite may do so only after submitting a copy of the Subcontractor’s Employee Drug Testing Program. A Contractor or Subcontractor shall not commence work until the Owner has concluded the Employee Drug Testing Program complies with this Regulation as per Section 3.2.

**SUBSTITUTIONS:**

1. **Not used**

**REVISIONS TO SPECIFICATIONS MANUAL:**

1. Please replace the existing specification section 00 41 13 Bid Form with the attached section 00 41 13 Bid Form to show the change to the name of the Pipe Railing Fabricator subcontractor to just say Pipe Railing.
2. Please replace the existing specification section 32 14 13 Interlocking Concrete Pavement Overlay with the attached section 32 14 13 Interlocking Concrete Pavement Overlay to clarify scope on edge restraints based on possible existing bases found under the existing pavers.

**REVISIONS TO DRAWINGS:**

1. Please replace the existing drawing A 3.2 with the attached drawing A 3.2 to show clarifications and additions to the edge restrain details base on possible existing bases found under the existing pavers.



HEADQUARTERS

2500 WRANGLE HILL ROAD  
FOX RUN OFFICE PLAZA, SUITE 110  
BEAR, DE 19701

302.832.1652 PHONE  
302.832.1423 FAX

ARCHITECTS ENGINEERS FACILITIES SOLUTIONS

Project: State of Delaware – MC1002000316  
Kent County Family Court Pavers  
Project No.: 15062

Pre-Bid Meeting  
March 23, 2016

SIGN IN SHEET

ATTACH BUSINESS CARD

or

WRITE: Name, Firm, Phone, Email

	
<b>B. Scott Schurman</b> Vice President Mobile: 302.270-0133 scott@brsconinc.com Uncompromising Quality	PO Box 237 Harrington, DE 19952 Office: 302.786.2326 Fax: 302.786.2079

Name:	REGGIE CAPITAN
Firm:	The Brick Doctor, Inc
Phone:	302 242-2652
Fax:	302-209-3010
Email:	Reggie@TheBrickDoctor.com
Name:	B. Scott Schurman
Firm:	BRS Consulting Inc
Phone:	302 786 2326
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Name:	Brian C Thompson
Firm:	Conventional Builders INC
Phone:	302-422-2429
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ARCHITECTS ENGINEERS FACILITIES SOLUTIONS

Project: State of Delaware – MC1002000316  
Kent County Family Court Pavers  
Project No.: 15062

Pre-Bid Meeting  
March 23, 2016

SIGN IN SHEET

ATTACH BUSINESS CARD

or

WRITE: Name, Firm, Phone, Email

Large empty rectangular box for business card attachment.

Name:	DWAYNE A COLE
Firm:	M G HAMOX CORP
Phone:	302 535-7442
Fax:	
Email:	wnick2cole@hotmail.com
Name:	Alex Pelletier
Firm:	The Grounds Guys
Phone:	302-653-3714
Fax:	
Email:	alex.pelletier@mail.groundsguys.com
Name:	Steve Seibu
Firm:	AMAKOR, INC.
Phone:	(302) 834-8664
Fax:	(302) 834-8681
Email:	Amakor@aol.com

# Pre-Bid Meeting Minutes

## Kent County Family Court – Brick Walk

3/24/16

KENT COUNTY FAMILY COURT – BRICK WALK  
 STATE OF DELAWARE, PROJECT # 15062  
 BID # MC1002000316

### New Business

Item	Project Description & Notes	Action
1.1	The meeting began at approximately 10:00 a.m.	
1.2	Mr. Spangler began the meeting by thanking those in attendance.	
1.3	Mr. Spangler indicated that attendance at this pre-bid meeting was mandatory prerequisite for any prime contractor to submit a bid on this project.	
1.4	<p>Mr. Spangler then went over the following:</p> <ol style="list-style-type: none"> <li>1. Bid bonds are required.</li> <li>2. Performance and payment bonds will be required of the successful contractor.</li> <li>3. The first addendum has already been issued. It changed the pre-bid and bid dates only.</li> <li>4. At least one additional addendum will be issued to distribute the minutes of this meeting as well as provide some clarifications to the work.</li> <li>5. Bids are due as denoted in the advertisement for bids as modified in the first addendum on Thursday, April 7, 2016 at 2:30 p.m. at the Thomas Collins Building, 540 S. DuPont Highway, Suite 1 (Third Floor), Dover, DE 19901.</li> <li>6. As of the January 1 of 2016, new drug testing is required of prime contractors and all sub contractors on State work. The applicable requirements and forms are in the bid documents.</li> <li>7. As the project is expected to exceed the threshold for state of Delaware labor rates for renovations, this project will require the payment of the state of Delaware labor rates. The applicable labor rates are published in the bid documents.</li> </ol>	
1.5	Mr. Lieber introduced himself as the project manager representing the State for this project. He reinforced that the drug testing requirements are to be complied with by the successful contractor and subcontractors. A list of contractors that are in compliance with the requirements is not yet available from the State.	
1.6	Mr. Spangler introduced himself as the project manager representing StudioJAED Architects & Engineers, the design firm on the project. Mr. Lieber and Mr. Spangler encouraged the potential bidders to ensure that the subcontractor form was filled out. If any prime contractor will be performing the work of any of the subcontracting categories, then they are to list themselves in the applicable categories. Mr. Spangler and Mr. Lieber encouraged all bidders to completely fill out the bid form and sign it, etc. Also, Mr. Lieber reinforced the fact that the bidders needed to acknowledge the receipt of all addendums by number on the bid form. The use of the term “all addendums” is not acceptable. Mr. Lieber indicated that he did not want to declare any bids as not responsive as a result of not being correct or complete, etc.	
1.7	To clear up confusion, Mr. Spangler indicated that the subcontractor bid form subcontracting category of Pipe Railing Fabricator would be modified to Pipe Railing to indicate the category is an actual subcontractor and not a manufacturer of the pipe railing.	
1.8	Mr. Lieber indicated that for the successful contractor, if any change orders are required that the PO would need to be in place prior to the work associated with the change being performed. For weekend work, Mr. Lieber indicated that his mobile phone would be available for approval of changes. Also, he would have access to State finance personnel for approval of a PO in such a case.	
1.9	Mr. Spangler indicated that the successful contractor would be responsible for all permitting required of the project.	

These minutes were prepared by David Spangler of StudioJAED. Report discrepancies within five (5) days of receipt.

# Pre-Bid Meeting Minutes

3/24/16

## Kent County Family Court – Brick Walk

KENT COUNTY FAMILY COURT – BRICK WALK  
STATE OF DELAWARE, PROJECT # 15062  
BID # MC1002000316

1.10	The Owner reserves the right to compaction test any aggregate and or concrete installed by the Contractor to ensure compliance with requirements, etc. If the Owner exercises that right, the Owner will pay for such testing.	
1.11	The meeting ended at approximately 10:25 a.m.	





**REVISED PER ADDENDUM #2**  
**BID FORM**

**UNIT PRICES**

Unit prices conform to applicable project specification section. Refer to the specifications for a complete description of the following Unit Prices:

NONE

**REVISED PER ADDENDUM #2**

**BID FORM**

I/We acknowledge Addendums numbered \_\_\_\_\_ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids (60 days for School Districts and Department of Education), and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within \_\_\_\_\_calendar days of the Notice to Proceed.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By \_\_\_\_\_ Trading as \_\_\_\_\_  
(Individual's / General Partner's / Corporate Name)  
\_\_\_\_\_  
(State of Corporation)

Business Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Witness:** \_\_\_\_\_ **By:** \_\_\_\_\_  
(SEAL) ( Authorized Signature )  
\_\_\_\_\_  
( Title )  
**Date:** \_\_\_\_\_

**ATTACHMENTS**

- Sub-Contractor List
- Non-Collusion Statement
- Affidavit(s) of Employee Drug Testing Program
- Bid Security
- (Others as Required by Project Manuals)

**BID FORM**

**SUBCONTRACTOR LIST**

In accordance with Title 29, Chapter 6962 (d)(10)b Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor **must be listed for each category** where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, it is **required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work**. This form must be filled out completely with no additions or deletions. **Note that all subcontractors listed below must have a signed Affidavit of Employee Drug Testing Program included with this bid.**

<b><u>Subcontractor Category</u></b>	<b><u>Subcontractor</u></b>	<b><u>Address (City &amp; State)</u></b>	<b><u>Subcontractors tax payer ID # or Delaware Business license #</u></b>
1. Pipe Railing	_____	_____	_____
2. Concrete	_____	_____	_____
3. Masonry	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

**BID FORM**

**NON-COLLUSION STATEMENT**

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date (*to the Office of Management and Budget, Division of Facilities Management*).

All the terms and conditions of (*Project or Contract Number*) have been thoroughly examined and are understood.

**NAME OF BIDDER:** \_\_\_\_\_

**AUTHORIZED REPRESENTATIVE (TYPED):** \_\_\_\_\_

**AUTHORIZED REPRESENTATIVE (SIGNATURE):** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**ADDRESS OF BIDDER:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**E-MAIL:** \_\_\_\_\_

**PHONE NUMBER:** \_\_\_\_\_

Sworn to and Subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

My Commission expires \_\_\_\_\_. NOTARY PUBLIC \_\_\_\_\_.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

**REVISED PER ADDENDUM #2**

**AFFIDAVIT  
OF  
EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite that complies with this regulation:

**Contractor/Subcontractor Name:** \_\_\_\_\_

**Contractor/Subcontractor Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Authorized Representative (typed or printed):** \_\_\_\_\_

**Authorized Representative (signature):** \_\_\_\_\_

**Title:** \_\_\_\_\_

Sworn to and Subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

My Commission expires \_\_\_\_\_. NOTARY PUBLIC \_\_\_\_\_.

**THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.**

**REVISED PER ADDENDUM #2**

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
StudioJAED Project No. 15062  
Bid & Construction

INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

**SECTION 32 14 13  
INTERLOCKING CONCRETE PAVEMENT OVERLAY**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. Section Includes
  - 1. Concrete paver units.
  - 2. Bedding and joint sand.
  - 3. Geotextiles.
  - 4. Edge restraints.

**1.02 REFERENCES**

- A. American Society of Testing and Materials (ASTM):
  - 1. C 33, Specification for Concrete Aggregates.
  - 2. C 136, Method for Sieve Analysis for Fine and Coarse Aggregate.
  - 3. C 140, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
  - 4. C 144, Standard Specification for Aggregate for Masonry Mortar.
  - 5. C 936, Specification for Solid Interlocking Concrete Paving Units.
  - 6. C 979, Standard Specification for Pigments for Integrally Colored Concrete.
  - 7. C 1645, Standard Test Method for Freeze-thaw and De-icing Salt Durability of Solid Concrete Interlocking Paving Units.
- B. Interlocking Concrete Pavement Institute (ICPI)
  - 1. ICPI Tech Spec Technical Bulletins

**1.03 SUBMITTALS**

- A. In accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Manufacturer's drawings and details: Indicate perimeter conditions, relationship to adjoining materials and assemblies, concrete paver layout, patterns, color arrangement, installation and setting details.
- C. Sieve analysis per ASTM C 136 for grading of bedding and joint sand.
- D. Bedding sand durability test results.
- E. Concrete pavers:
  - 1. Four representative full-size samples of each paver type, thickness, color, finish that indicate the range of color variation and texture expected in the finished installation. Color(s) selected by Architect from manufacturer's available colors.
  - 2. Accepted samples become the standard of acceptance for the work.
  - 3. Test results from an independent testing laboratory for compliance of paving unit requirements to ASTM C 936.
  - 4. Manufacturer's certification of concrete pavers by ICPI as having met applicable ASTM standards.
  - 5. Manufacturer's catalog product data, installation instructions, and material safety data sheets for the safe handling of the specified materials and products.
- F. Paver Installation Subcontractor:
  - 1. A copy of Subcontractor's current certificate from the Interlocking Concrete Pavement Institute Concrete Paver Installer Certification program.

## REVISED PER ADDENDUM #2

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
StudioJAED Project No. 15062  
Bid & Construction

INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

2. Job references from projects of a similar size and complexity. Provide Owner/Client/General Contractor names, postal address, phone, fax, and email address.

### 1.04 QUALITY ASSURANCE

- A. Paving Subcontractor Qualifications:
  1. Utilize an installer having successfully completed concrete paver installation similar in design, material, and extent indicated on this project.
  2. Utilize an installer holding a current certificate from the Interlocking Concrete Pavement Institute Concrete Paver Installer Certification program.
- B. Mock-Ups:
  1. Install a 7 ft x 7 ft (2 x 2 m) paver area.
  2. Use this area to determine surcharge of the bedding sand layer, joint sizes, lines, laying pattern(s), color(s), and texture of the job.
  3. This area will be used as the standard by which the work will be judged.
  4. Subject to acceptance by owner, mock-up may be retained as part of finished work.
  6. If mock-up is not retained, remove and properly dispose of mock-up.

### 1.05 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Section.
- B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers packaging with identification labels intact.
  1. Coordinate delivery and paving schedule to minimize interference with normal use of buildings adjacent to paving.
  2. Deliver concrete pavers to the site in steel banded, plastic banded or plastic wrapped packaging capable of transfer by fork lift or clamp lift.
  3. Unload pavers at job site in such a manner that no damage occurs to the product.
- D. Storage and Protection: Store materials protected such that they are kept free from mud, dirt, and other foreign materials. Store concrete paver cleaners and sealers per manufacturer's instructions.
  1. Cover bedding sand and joint sand with waterproof covering if needed to prevent exposure to rainfall or removal by wind. Secure the covering in place.

### 1.06 PROJECT/SITE CONDITIONS

- A. Environmental Requirements:
  1. Do not install sand or pavers during heavy rain or snowfall.
  2. Do not install sand and pavers over frozen aggregate base materials.
  3. Do not install frozen sand or saturated sand.
  4. Do not install concrete pavers on frozen or saturated sand.

### 1.07 MAINTENANCE

- A. Extra Materials: Provide 10% additional material for use by owner for maintenance and repair.
- B. Pavers shall be from the same production run as installed materials.

## PART 2 PRODUCTS

REVISED PER ADDENDUM #2

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
StudioJAED Project No. 15062  
Bid & Construction

INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

2.01 CONCRETE PAVERS

- A. Manufacturer: Pine Hall Brick Inc.
  - 1. Contact: Pine Hall Brick Inc. 2701 Shorefair Drive, Winston-Salem, NC 27105.  
1-800-334-8689
- B. Interlocking Concrete Pavers:
  - 1. Paver Type: Traditional Edge Series, Pathway FR. Product no: PHPWFR48.
    - a. Material Standard: Comply with material standards in ASTM C 936.
    - b. Color: Full Range Color
    - c. Color Pigment Material Standard: Comply with ASTM C 979.
    - d. Size: 4 inches x 8 inches x 2 ¼ inches thick.
    - e. Average Compressive Strength (ASTM C 140): 8000 psi (55 MPa) with no individual unit under 7200 psi (50 MPa) per ASTM C 140.
    - f. Average Water Absorption (ASTM C 140): 5% with no unit greater than 7%.
    - g. Freeze/Thaw Resistance (ASTM C 1645): Provide test results to 28 freeze/thaw cycles with no greater loss than 225 g/m<sup>2</sup> of surface area or 49 cycles with no greater loss than 500 g/m<sup>2</sup> of surface area. Freeze-thaw testing requirements shall be waived for applications not exposed to freezing conditions.

2.02 PRODUCT SUBSTITUTIONS

- A. See Section 01 60 00 – Product Requirements for substitution submission procedures.

2.03 BEDDING AND JOINT SAND

- A. Provide bedding and joint sand as follows:
  - 1. Washed, clean, non-plastic, free from deleterious or foreign matter, symmetrically shaped, natural or manufactured from crushed rock.
  - 2. Do not use limestone screenings, stone dust, or sand for the bedding sand material that do not conform to the grading requirements of ASTM C 33.
  - 3. Do not use mason sand or sand conforming to ASTM C 144 for the bedding sand.
  - 4. Where concrete pavers are subject to vehicular traffic, utilize sands that are as hard as practically available.
  - 5. Sieve according to ASTM C 136.
  - 6. Bedding Sand Material Requirements: Conform to the grading requirements of ASTM C 33 with modifications as shown in Table 1.

Table 1  
ASTM C 33 Grading Requirements for Bedding Sand

Sieve Size	Percent Passing
3/8 in. (9.5 mm)	100
No. 4 (4.75 mm)	95 to 100
No. 8 (2.36 mm)	85 to 100
No. 16 (1.18 mm)	50 to 85
No. 30 (0.600 mm)	25 to 60
No. 50 (0.300 mm)	10 to 30
No. 100 (0.150 mm)	2 to 10
No. 200 (0.075 mm)	0 to 1

**REVISED PER ADDENDUM #2**

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
StudioJAED Project No. 15062  
Bid & Construction

INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

- 7. Joint Sand Material Requirements: Conform to the grading requirements of ASTM C 144 as shown with modifications in Table 2 below:

Table 2  
ASTM C 144 Grading for Joint Sand

Sieve Size	Natural Sand	Manufactured Sand
	Percent Passing	Percent Passing
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 to 100	95 to 100
No. 16 (1.18 mm)	70 to 100	70 to 100
No. 30 (0.600 mm)	40 to 75	40 to 100
No. 50 (0.300 mm)	10 to 35	20 to 40
No. 100 (0.150 mm)	2 to 15	10 to 25
No. 200 (0.075 mm)	0 to 1	0 to 10

**2.04 EDGE RESTRAINTS FOR GABC BASE**

- A. Provide edge restraints installed around the perimeter of all interlocking concrete paving unit areas as follows:
  - 1. Manufacturer: Snap Edge Paver Restraint
  - 2. Description: 8 foot, snip and flex paver edging, made of 100% recycled high density polyethylene (HDPE).
  - 3. Material: Plastic
  - 4. Material Standard: Testing to meet requirement of ASTM E 329-95 and certified by the United States Bureau of Standards. Testing laboratory shall obtain all concrete samples and edge restraint samples.
  - 5. Long nails shall be used to secure the paver edge restraint into the properly compacted sub base. These nails are commonly referred to as "Landscape Spikes".
    - a. Spikes shall be standard headed, steel, 3/8" diameter by 8,10, or 12 inches long.
    - b. Spike spacing may be 12" to 24" apart with the following guidelines:
      - i. Using 10" long spikes spaced 12" apart is preferred to using longer spikes with 18-24" spacing.
      - ii. Projects immediately backfilled (full depth) with a complete root producing foliage such as grass will be acceptable with 18-24" spacing when the roots are entwined with the edging.

**2.05 EDGE RESTRAINTS FOR CONCRETE BASE**

- A. Provide edge restraints installed around the perimeter of all interlocking concrete paving unit areas as follows:
  - 1. Manufacturer: Snap Edge Paver Restraint
  - 2. Description: 8 foot, snip and flex paver edging, made of 100% recycled high density polyethylene (HDPE).
  - 3. Material: Plastic
  - 4. Material Standard: Testing to meet requirement of ASTM E 329-95 and certified by the United States Bureau of Standards. Testing laboratory shall obtain all concrete samples and edge restraint samples.

**REVISED PER ADDENDUM #2**

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
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INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

5. Powder Actuated Fastener shall be used to secure the paver edge restraint into concrete sub base. These pins are commonly referred to as "Power Actuated Fasteners with washer".
  - a. Pins shall be standard steel drive pins, 2" - 2.5" length with washer.
  - b. Pin spacing 12" OC.

**2.06 ACCESSORIES**

- A. Provide accessory materials as follows:
  1. Geotextile Fabric:
    - a. Over any cracks and or expansion joints to prevent bedding sand migration
    - b. Geotextile shall be as least 12" wide over cracks or joints

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Acceptance of Site Verification of Conditions:
  1. General Contractor shall inspect, accept and certify in writing to the paver installation subcontractor that site conditions meet specifications for the following items prior to installation of interlocking concrete pavers.
    - a. Verify that subgrade preparation, compacted density and elevations conform to specified requirements.
    - b. Verify that geotextiles, if applicable, have been placed according to drawings and specifications.
    - c. Verify that Aggregate or Concrete base materials, thickness, compacted density, surface tolerances and elevations conform to specified requirements.
    - d. Provide written density test results for soil subgrade, aggregate base materials to the Owner, General Contractor and paver installation subcontractor.
    - e. Verify location, type, and elevations of edge restraints, utility structures, and drainage holes and inlets.
  2. Do not proceed with installation of bedding sand and interlocking concrete pavers until subgrade soil and base conditions are corrected by the General Contractor or designated subcontractor.

**3.03 PREPARATION**

- A. Verify base is clean and dry, certified by General Contractor as meeting material, installation and grade specifications.
- B. Verify that base and geotextile is ready to support sand, edge restraints, and, pavers and imposed loads.
- C. Edge Restraint Preparation:
  1. Install edge restraints per the drawings and manufacturer's recommendations.
  2. Mount directly to finished base. Do not install on bedding sand.
  3. The minimum distance from the outside edge of the base to the spikes shall be equal to the thickness of the base for GABC installation.

**3.04 INSTALLATION**

- A. Spread bedding sand evenly over the base course and screed to a nominal 1 in. (25 mm) thickness. Spread bedding sand evenly over the base course and screed rails, using the

## REVISED PER ADDENDUM #2

State of Delaware - OMB/DFM  
Kent County Family Court - Brick Walk  
StudioJAED Project No. 15062  
Bid & Construction

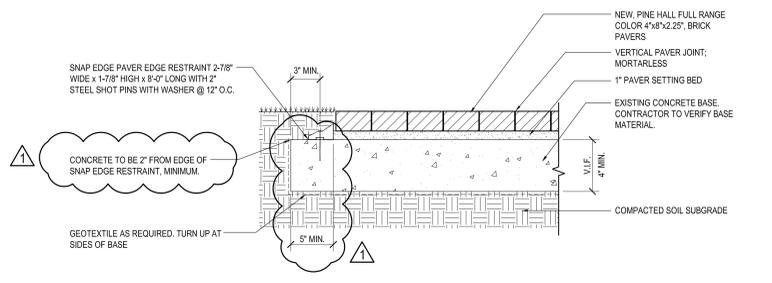
INTERLOCKING CONCRETE PAVEMENT OVERLAY  
32 14 13  
March 24, 2016

rails and/or edge restraints to produce a nominal 1 in. (25 mm) thickness, allowing for specified variation in the base surface.

1. Do not disturb screeded sand.
  2. Screeded area shall not substantially exceed that which is covered by pavers in one day.
  3. Do not use bedding sand to fill depressions in the base surface.
- B. Lay pavers in pattern(s) to match existing conditions and as specified on drawings. Place units hand tight without using hammers. Make horizontal adjustments to placement of laid pavers with rubber hammers as required.
- C. Provide joints between pavers between [1/16 in. and 3/16 in. (2 and 5 mm)] wide. No more than 5% of the joints shall exceed [1/4 in. (6 mm)] wide to achieve straight bond lines.
- D. Joint (bond) lines shall not deviate more than  $\pm 1/2$  in. ( $\pm 15$  mm) over 50 ft. (15 m) from string lines.
- E. Fill gaps at the edges of the paved area with cut pavers or edge units.
- F. Cut pavers to be placed along the edge with a double blade paver splitter or masonry saw. All masonry cutting must be wet cut.
- G. Adjust bond pattern at pavement edges such that cutting of edge pavers is minimized. New pattern and design to match existing recently installed pavers.
- H. Keep skid steer and forklift equipment off newly laid pavers that have not received initial compaction and joint sand.
- I. Use a low-amplitude plate compactor capable of at least minimum of 4,000 lbf (18 kN) at a frequency of 75 to 100 Hz to vibrate the pavers into the sand. Remove any cracked or damaged pavers and replace with new units.
- J. Simultaneously spread, sweep and compact dry joint sand into joints continuously until full. This will require at least 4 to 6 passes with a plate compactor. Do not compact within 6 ft (2 m) of unrestrained edges of paving units.
- K. All work within 6 ft. (2 m) of the laying face must shall be left fully compacted with sand-filled joints at the end of each day or compacted upon acceptance of the work. Cover the laying face or any incomplete areas with plastic sheets overnight if not closed with cut and compacted pavers with joint sand to prevent exposed bedding sand from becoming saturated from rainfall.
- L. Remove excess sand from surface when installation is complete.
- M. Surface shall be broom clean after removal of excess joint sand.
- 3.05 FIELD QUALITY CONTROL
- A. The final surface tolerance from grade elevations shall not deviate more than  $\pm 3/8$  in. ( $\pm 10$  mm) under a 10 ft (3 m) straightedge.
- B. Final surface elevations are to match existing elevations, U.N.O. Contractor to verify grades
- C. The surface elevation of pavers shall be 1/8 in. to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.
- D. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.
- 3.07 PROTECTION
- A. After work in this section is complete, the General Contractor shall be responsible for protecting work from damage due to subsequent construction activity on the site.

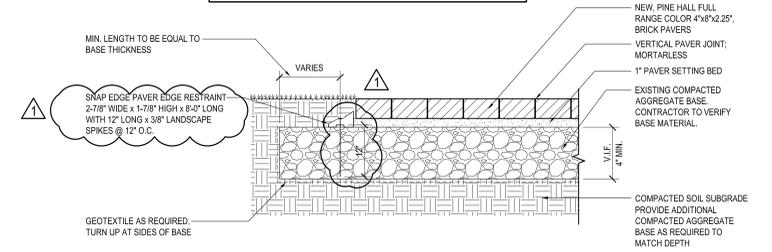
END OF SECTION

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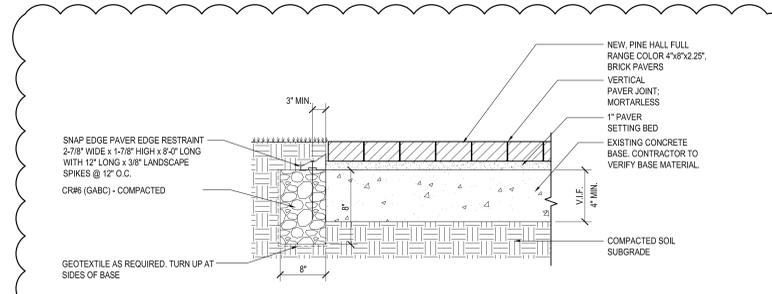


**1 PAVER SECTION - CONCRETE BASE**  
 SCALE: 1 1/2" = 1'-0"

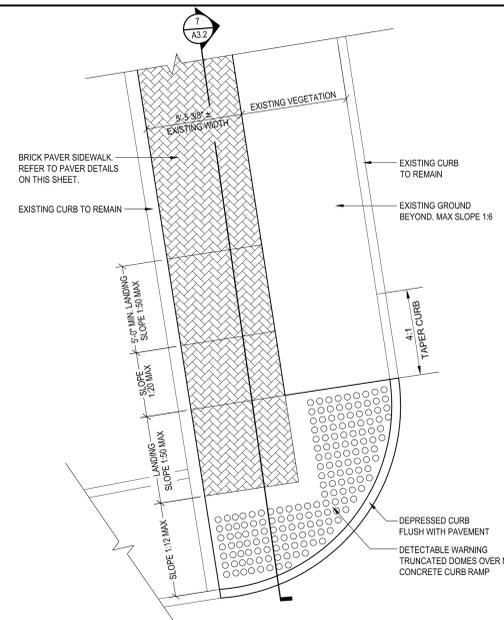
NOTE: CONTRACTOR TO VERIFY EXISTING BASE MATERIAL.



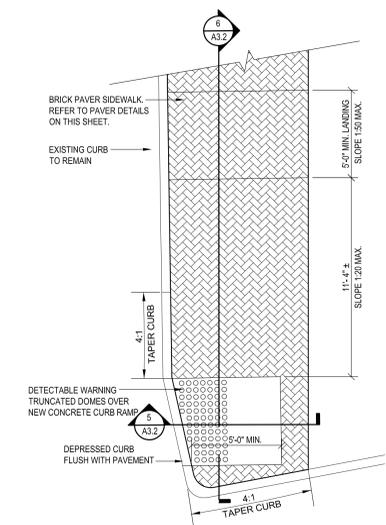
**2 PAVER SECTION - AGGREGATE BASE**  
 SCALE: 1 1/2" = 1'-0"



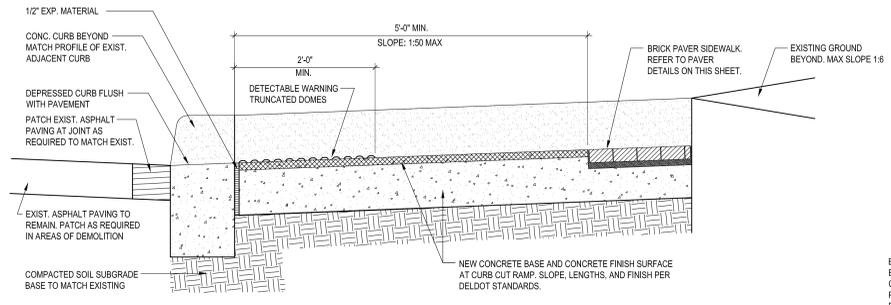
**10 PAVER SECTION - WHERE CONC. BASE DOES NOT EXTEND 5\"/>**



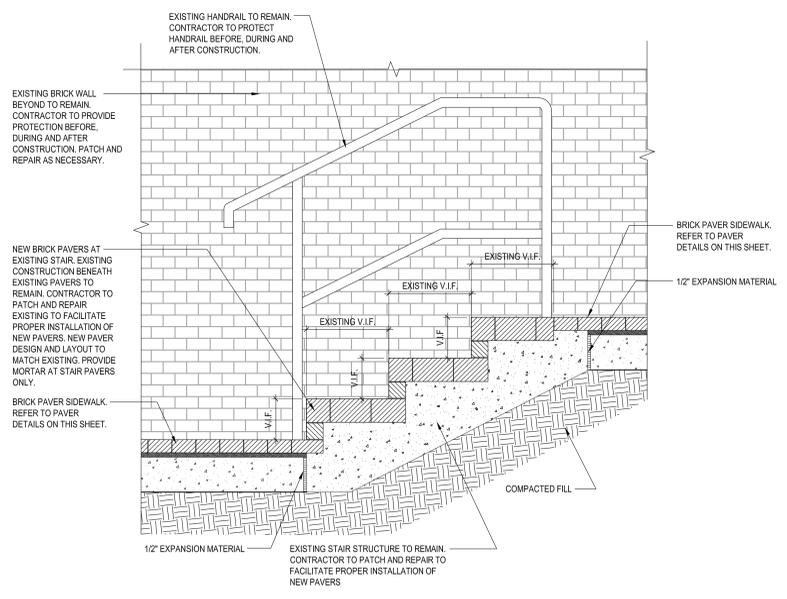
**3 CURB CUT RAMP PLAN**  
 SCALE: 1/4" = 1'-0"



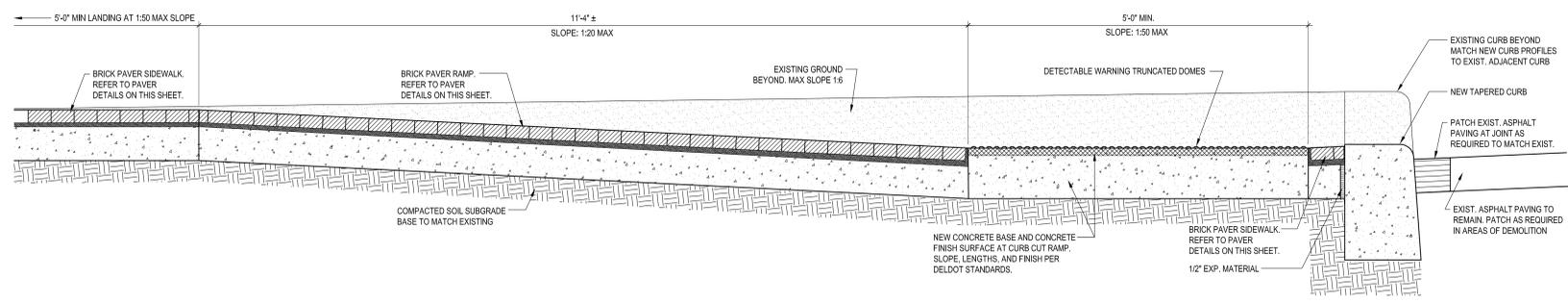
**4 CURB CUT RAMP PLAN**  
 SCALE: 1/4" = 1'-0"



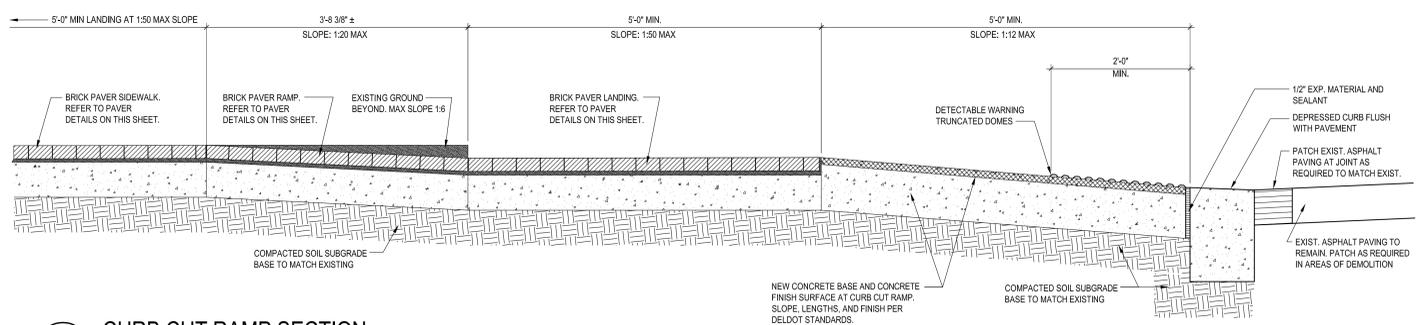
**5 CURB CUT RAMP SECTION**  
 SCALE: 1" = 1'-0"



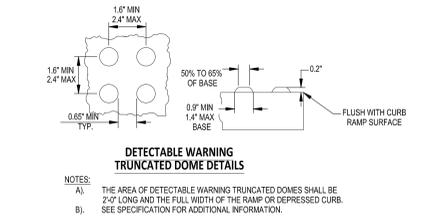
**8 TYP. STAIR SECTION**  
 SCALE: 1" = 1'-0"



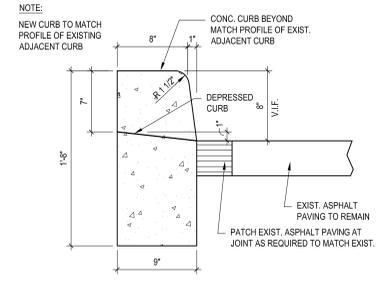
**6 CURB CUT RAMP SECTION**  
 SCALE: 1" = 1'-0"



**7 CURB CUT RAMP SECTION**  
 SCALE: 1" = 1'-0"



**9 TYP. DETECTABLE WARNING DETAILS**  
 SCALE: 1" = 1'-0"



**10 TYP. CURB DETAIL**  
 SCALE: 1 1/2" = 1'-0"

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REVISIONS	
DESCRIPTION	DATE
ADDENDUM #2	3/24/16

STATE OF DELAWARE  
 OMBUDSMAN OF FACILITIES MANAGEMENT  
 KENT COUNTY FAMILY COURT - BRICK WALK  
 400 COURT STREET  
 DOVER, DE 19901

PROJECT SHEET TITLE	
DETAILS	
<b>ISSUED FOR BID &amp; CONSTRUCTION</b>	
MARCH 4, 2016	
DRAWN	CHKD/DESIGNER
HMS	PRC
DISCIPLINE	SHEET NO.
A	3.2
PROJECT NO.	15062