

James A. Carter  
Mayor



Donovan Blackburn  
City Manager

## CITY OF PIKEVILLE

### INVITATION TO BID YORK HOUSE SITE IMPROVEMENTS PROJECT

**BID OPENING:**  
**Monday, July 25, 2016 at 10:00 AM EDT**

**SCOPE:**

**The City of Pikeville is seeking bids for the York House Site Improvements Project. The work includes grading, drainage, and site related improvements surrounding the historic York House located at the corner of York Alley and Main Street in downtown Pikeville, Kentucky.**

**GENERAL COMPLIANCE:**

**NOTE TO BIDDERS:** Bid submission does not constitute an agreement or a contract with the City of Pikeville.

**NO RESPONSE:** Bidders unable or unwilling to submit a bid should immediately return the "Bidder Response Form" only with "No Response" marked clearly on the outside of the envelope. Any vendor not submitting a bid is encouraged to indicate the reason(s) for not participating.

**ALTERNATE BIDS:** It is not the intention of the specifications contained herewith to eliminate any bidder; however, quoted items must equal or exceed stated specifications.

**INDICATION OF COMPLIANCE:** The bidder shall indicate compliance with either a "Yes" or a "No" for each item specification. Blank spaces shall be considered non-compliance. Any deviation from the specification or where submitted literature does not fully support meeting the specification(s) must be clearly cited on the attached page labeled "Exceptions to Bid Specifications." No deviation below "minimum" specifications will be accepted.

**Additional Information:** While not necessary, the proposer may include any product brochures, software documentation, sample reports, or other documentation that may assist the City of Pikeville in better understanding and evaluating the proposer's response. Additional documentation shall not serve as a substitute for other documentation which is required by the Invitation to Bid (ITB) to be submitted with the proposal.



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At the time of submission, each bidder will be presumed to have inspected the site(s), if necessary, and to have read the scope and to be thoroughly familiar with the project plans and contract documents (including any and all addenda). The failure or omission of any bidder to examine any form, instrument, or document shall in no way relieve any bidder from any obligation with respect to this bid.

All bids and any additional submitted information becomes the property of the City of Pikeville and will not be returned to the bidder.

**BID SUBMISSION:** All pages of the original signed hardcopy bid shall be initialed in ink on the lower right-hand corner. Typed quotation sheets are preferred; however, if hand written, the sheets must be legible and in ink. Any pricing information that is illegible may result in the rejection of the bid.

The bidder must submit one original signed hardcopy, and two (2) duplicates. These must be sealed in a container with the project name, the bidder's name and the opening date clearly marked on the outside of the envelope. The cover of the original bid should be marked "Original" and the cover of the duplicates should be marked "Copy." The bid shall be addressed and delivered to Elizabeth Thompson - City Clerk, 243 Main Street, Pikeville, KY 41501 prior to bid opening scheduled for Monday, July 25, 2016 at 10:00 AM EDT.

ANY BIDS NOT RECEIVED PRIOR TO THE SCHEDULED OPENING DATE AND TIME WILL BE REJECTED AND RETURNED UNOPENED.

**FAILURE TO SUBMIT REQUIRED DOCUMENTATION:** Failure to submit ALL forms and information required in this ITB may be grounds for disqualification.

**LIABILITY:** City of Pikeville is not liable for any expenses incurred in connection with the preparation of bids.

**KENTUCKY OPEN RECORDS LAW:** At the time a bid is submitted to the City, bidder shall identify any information that is submitted as part of the bid that is proprietary or confidential in nature and not subject to release for public inspection. The City of Pikeville will protect any proprietary or confidential information to the extent allowable under the Kentucky Open Records Act.

**NEW GOODS, FRESH STOCK:** Unless otherwise specifically stated, all Contractors shall provide new commodities, fresh stock, latest model, design or package.

**COMPLIANCE WITH LAWS AND REGULATIONS:** Each bidder shall comply with all Federal, State & Local regulations concerning this type of service.

**METHOD OF AWARD:** Award will be made to the lowest responsive (compliance with specifications) and responsible bidder meeting specifications on each item. The City of Pikeville reserves the right to consider as a part of the bid evaluation the stated warranty, stated delivery schedule, service, features, upgrades and payment terms.

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The City of Pikeville reserves the right to reject any and all bids, to award any bid in whole or in part, and/or to waive any irregularities or minor immaterial defects in any and all bids. The right is also reserved to award bids based on the best interest and/or most advantageous to the City. The City of Pikeville may also consider any alternative bid that meets its basic needs.

PRE-BID MEETING: No pre-bid meeting will be held.

PRICING: All prices shall be quoted exclusive of any taxes. The City of Pikeville is exempt from Federal excise, transportation and/or Kentucky sales tax. Any items supplied directly to the City from a supplier/manufacturer are exempt from sales tax. Any items purchased by a contractor that will be used in the fulfillment of a contract are not exempt from sales tax.

In case of a discrepancy in the extension of a unit price, the unit price shall govern the total price.

Bidders must provide manufacturer's product literature if available and appropriate with the bid submission.

Bids shall remain firm and open to acceptance by the City of Pikeville for a minimum period of sixty (60) days after the proposal opening. If the time period has expired the City of Pikeville could request a letter from bidders asking to extend the time period.

DELIVERY SCHEDULE: Delivery date shall be specified on each item quoted. The vendor will be expected to fulfill the delivery as specified.

PAYMENT: The bid must clearly state the payment terms, including prompt payment discounts and payment due dates. Discounts should be figured into the unit price of the quoted item. The City of Pikeville reserves the right to select the most beneficial terms.

DEFAULT; TERMINATION OF CONTRACT: In the event that any of the provisions of this Contract are violated by the bidder such breach shall constitute a default. In the event of a default, the Owner may serve written notice upon the bidder of its intention to terminate the Contract, such notice to contain the reasons for such intention to terminate the Contract, and unless within ten (10) days after the serving of such notice upon the bidder, such violation or delay shall cease and satisfactory arrangement of correction be made, the Contract shall, upon the expiration of said ten (10) days, cease and terminate.

SAFETY: The successful bidder must perform work in a safe and timely fashion, maintain a clean and safe work environment, follow safety requirements established by OSHA and the City of Pikeville, and may be required to provide safety equipment. If, in the opinion of the City, safety precautions are not in existence, work will cease immediately until corrective action is taken. Work will

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begin again only when vendor demonstrates to the satisfaction of the City that conditions are without risk.

**INSURANCE REQUIREMENTS:** The successful bidder covenants and agrees to the insurance requirements documented in the City of Pikeville's **Construction Agreement** included within the contract documents.

**HOLD HARMLESS AGREEMENT:** The bidder covenants to save, defend, keep harmless, and indemnify the City of Pikeville and all of its officers, departments, agencies, agents, and employees from and against all claims, loss, damage, injury, fine, penalties, and costs including court costs and attorney's fees, charges, liability, and exposure however caused resulting from, arising out of, or in any way connected with the bidder's negligent performance or non-performance of the terms of the contract.

**CONTRACTOR STATUS:** Bidder understands and agrees that its employees, agents, and/or sub-bidders are not employees of City of Pikeville for any purpose whatsoever.

**BIDDER'S QUALIFICATIONS:** Vendor must demonstrate to the satisfaction of the City of Pikeville that he/she has adequate equipment, personnel, experience and understanding of the specifications to perform service under the contract.

No contract will be awarded to any bidder who, in the opinion of the City, is not qualified to perform satisfactorily due to a previously unfavorable performance, reputation or lack of experience, capital, organization, equipment, and/or personnel to conduct and complete the services in accordance with the terms and conditions of the contract.

Successful bidder must comply with the City of Pikeville ordinances relating to Occupational License Fees, Business Licenses, payroll and net profits and any other ordinances which may apply to any particular bid package.

**BIDDER PREFERENCE:** Pursuant to KRS 45A.494, which is incorporated herein by reference: "a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidder. "

**EQUAL OPPORTUNITY STATUTES:** The City of Pikeville is an equal opportunity employer and does not discriminate on the basis of race, color, religion, sex, national origin, age, marital status, physical or mental disability, or any other characteristic protected by law. The City is also committed to employing only United States citizens and aliens who are authorized to work in the United States. The City complies with the Immigration Reform and Control Act of 1986. Therefore, the successful bidder must demonstrate to the satisfaction of the City that he also conforms to all Federal, State, and Local Equal Opportunity statutes. Further, the contractor will reimburse the City of Pikeville for any damages incurred due to any

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violation of the above mentioned statutes by the contractor while under contract to the City.

"OR EQUAL" CLAUSE: Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturer's or vendors' names, trade names, catalog numbers, etc., it is intended merely to establish a standard; and, any materials, article or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article or equipment so proposed, is, in the opinion of the Owner of equal substance and function.

AMBIGUITY, CONFLICT OR OTHER ERRORS IN ITB: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other such error in the ITB, he/she shall immediately notify the City of Pikeville of such error in writing and request modification or clarification of the document if allowable by the City of Pikeville.

**ADDENDA AND INTERPRETATIONS: No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.**

Every request for such interpretation should be in writing addressed to the Elizabeth Thompson - City Clerk, 243 Main Street, Pikeville, KY 41501 or by email to [elizabeth.thompson@pikevilleky.gov](mailto:elizabeth.thompson@pikevilleky.gov) and to be given consideration must be received at least three (3) days prior to the date fixed for the opening of bids. **Any and all such interpretations and any supplemental instructions will be in the form of written addendum to the specifications which, if issued, will be emailed to prospective bidders and posted to the City's website: [www.pikevilleky.gov](http://www.pikevilleky.gov).** Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addendums so issued shall become part of the contract documents.

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**SPECIFICATIONS**

Bids will include Equipment, Labor, Materials, and Material Delivery to complete the item of work. The City will award the contract on a lump sum basis to the lowest and best qualified Bidder.

All work to conform to the most current details and specifications as provided by the attached plans. Any details or specifications not included in the attached plans shall conform to the most current details and specifications as provided by the Kentucky Transportation Cabinet.

1. Contractor responsible for all required stormwater / erosion control protection measures as shown and noted on the plans. The Contractor will be required to follow the sediment and erosion control requirements documented in the City of Pikeville Ordinances. Filing of NOI is the responsibility of the Contractor at least 5 days prior to any earthwork activities. The Contractor is also required to obtain a grading permit from the City of Pikeville Building Inspector prior to starting any earthwork activities.
2. All disturbed areas outside of hardscape and landscape areas shall be seeded and strawed at a rate of 80% fescue and 20% annual rye, unless otherwise indicated on the plans. Please note that the City of Pikeville has a nearby source of topsoil of needed by the Contractor.
3. Project site clean-up is the responsibility of the Contractor.
4. Incidental to the above items of work include: notifications, mobilization/demobilization (unless otherwise noted), testing, utility location, permits, undercutting, stormwater controls, rock removal, drilling, or blasting, surveying, traffic control, proper material disposal and project site clean-up.
5. All materials and installation thereof by the Contractor must be in accordance with the plans, details, and specifications within the construction contract documents.
6. The selected Bidder shall be required to disclose all Subcontractors and Suppliers and submit an "Affidavit of Payment of Debts and Claims an Affidavit of Release of Liens" for the Bidder and each Subcontractor and Supplier. The City reserves the right to approve any changes to the list.
7. The Bidder shall obtain all permits needed to complete the work.

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**TIME OF COMPLETION**

The time period estimated and authorized by the City of Pikeville for substantial completion of work is hereby fixed as **30 consecutive calendar days**. The time shall begin ten (10) calendar days after Contractor is issued the Notice to Proceed. If the Contractor fails to be substantially complete with this work within this time without an approved extension then the City of Pikeville may retain the compensation otherwise to be paid to the Contractor the amount of Two Hundred Dollars (\$200) per consecutive calendar day that the Contractor shall be in default of substantial completion.

**WARRANTY**

Bidder warrants said goods and services for a period of one (1) year after installation and warrants that such goods and services shall meet all City and State specifications.

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BIDDER RESPONSE FORM

NAME OF FIRM: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

NAME (Type or Print): \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

\* Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

\* Signature certifies the proposed solution and services meet all requirements outlined in this bid proposal and the vendor will comply with all specified requirements unless exceptions are noted below.

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**Provide Unit Price & Total Amount Bid per Activity**

The following unit prices are based on estimated quantities. Final payment quantities shall be based on actual in-place quantities.

<b>Equipment, Labor, and Materials</b>	<b>Unit</b>	<b>Approx Quantity</b>	<b>Unit Price</b>	<b>Total Amount Bid</b>
<b>MOBILIZATION / DEMOBILIZATION</b> <i>(project bonds, staging, etc. Note: Mobilization / Demobilization cannot be greater than 3% of total contract.)</i>	LS	1		
<b>DEMOLITION</b> <i>(includes all site clearing, stockpiling, removal, &amp; proper disposal of materials as noted on the plans)</i>	LS	1		
<b>EARTHWORK</b> <i>(unclassified; including rock removal, stockpiling, and / or disposal: Excludes earthwork for detention basin)</i>	CY	120		
<b>TOPSOIL PLACEMENT</b> <i>(includes topsoil removal, stockpiling, &amp; replacement as noted on the plans)</i>	CY	200		
<b>EROSION CONTROL</b> <i>(including silt fence, inlet protection, etc.)</i>	LS	1		
<b>6" Underdrain Outlet Pipe</b> <i>(including cleanouts and connection to yard inlet)</i>	LF	95		
<b>12" ADS STORM SEWER PIPE</b>	LF	65		
<b>PERMEABLE CONCRETE PAVERS &amp; PERFORATED UNDERDRAIN SYSTEM</b> <i>(includes permeable paver installation, trenching, 4" perforated pipe, stone backfill, filter fabric according to plan details)</i>	SF	312		

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SEEDING & MULCHING	SY	1230		
18" NYLOPLAST YARD INLET	EA	2		
GRAVEL PARKING LOT RESTORATION <i>(includes: perimeter concrete paver installation, redistribution of existing gravel, and additional gravel needed to conform to concrete paver edging as shown on plans)</i>	LS	1		
UNDERGROUND STORMWATER DETENTION BASIN <i>(includes approx. 25 CY earthwork, filter fabric, &amp; stone installation according to plan and details)</i>	LS	1		
CONSTRUCTION STAKING	LS	1		

**TOTAL LUMP SUM BASE BID**    \$ \_\_\_\_\_

Bidder Acknowledges receipt of Addendum as noted: (mark N/A if none)

# \_\_\_\_\_      Dated \_\_\_\_\_

Sub-Contractor / Supplier	Contract Amount
_____	\$ _____
_____	\$ _____

Check here \_\_\_\_\_ and attach additional sheet for additional Sub-Contractors / Suppliers.

EXCEPTIONS TO SPECIFICATIONS AND/OR COMMENTS

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**CHECKLIST FOR REQUIREMENTS** – Initial “\_\_\_\_\_” for all below as indicated or bid may be rejected.

\_\_\_\_\_ Bidder received and understands the Invitation to Bid Package and Specifications.

\_\_\_\_\_ Proof of Required Insurance Coverages attached.

\_\_\_\_\_ Bidder Response Form completed and attached.

\_\_\_\_\_ Bidder has reviewed and understands City of Pikeville Construction Agreement.

\_\_\_\_\_ Warranty information attached (if applicable).

\_\_\_\_\_ Verification of service and manufacturing qualifications attached (if applicable).

## CONSTRUCTION AGREEMENT

THIS AGREEMENT entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016 by and between the CITY OF PIKEVILLE (“Owner”) of 243 Main Street, Pikeville KY 41501 and \_\_\_\_\_ (“Contractor”) of \_\_\_\_\_, Owner and Contractor, in consideration of the fulfillment of the terms and conditions contained herein to be observed and followed by the parties do hereby agree as follows:

### ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Bid Documents and other documents described in Article 9 below and are hereafter collectively referred to as contract documents. The Work is generally described as follows:

York House – Site Improvements

### ARTICLE 2 – THE PROJECT

2.01 The Project for which the Work under the contract documents may be the whole or only a part is generally described as follows:

York House – Site Improvements

### ARTICLE 3 – ENGINEER

3.01 The City Engineer, Philip R. Elswick, P.E., assume all duties and responsibilities, and has the rights and authority as Engineer in connection with the completion of the Work in accordance with the Contract.

### ARTICLE 4 – CONTRACT TIME

#### 4.01 Time of the Essence

- A. All time limits completion and readiness as stated in the Contract Documents are of the essence of the Contract.

#### 4.02 Days to Achieve Substantial Completion and Final Payment

- A. The Work will be substantially completed within **30 days** after the date when the Contract Time commences. The contract time may only be changed by a change order. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is timely made. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by fires, floods, epidemics, abnormal weather conditions, or acts of God.

4.03 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$200.00** for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner **\$200.00** for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

**ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 6.01.A below.

**ARTICLE 6 – PAYMENT PROCEDURES**

6.01 Submittal and Processing of Payments

- A. Owner will pay contractor for the work performed here under the total sum of \_\_\_\_\_ (\$\_\_\_\_\_).

6.02 Final Payment

Upon receipt of the final Application for Payment accompanied by Engineer's recommendation of payment, Owner shall pay Contractor the remainder of the Contract Price as recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages.

**ARTICLE 7 –INTEREST**

NOT USED

## ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement Contractor makes the following representations:

1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
4. If applicable, Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site.
5. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.
6. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
7. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
8. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **ARTICLE 9 – CONTRACT DOCUMENTS**

### 9.01 Contents

- A. The Contract Documents consist of the following:
  1. This Agreement (pages 1 to 10, inclusive).
  2. Invitation to Bid Documents (pages 1 through 10)
  3. 5 construction plan sheets generally titled, “York House – Site Improvements.”
  4. Technical Specifications

The Contract Documents may only be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by either a Field Order, Engineer’s approval of a Shop Drawing or Sample, or Engineer’s written interpretation or clarification.

## **ARTICLE 10**

### 10.01 Miscellaneous Terms

1. To the fullest extent permitted by Laws, Contractor shall indemnify, hold harmless and defend (regardless of whether contractor has complied with the insurance provisions herein) Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by in whole or in part by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them maybe liable.

2. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the work being performed pursuant to this agreement and in the amount set forth in Exhibit A which will provide protection from claims set forth below which may arise out a result from the work being performed under the contract document, whether is to be performed by the contractor, any subcontractor or supplier, or by anyone directly or indirectly employed by any of them to perform any of the work, or by anyone whose acts any of them may be liable:
  - a. claims under workers compensation, disability benefits and other similar employee benefit acts and the statutory amount required by the Commonwealth of Kentucky;
  - b. claims for damages because of bodily injury, occupational sickness or disease, or death of contractor's employees and the statutory amount required by the Commonwealth of Kentucky;
  - c. claims for damages because of bodily injury, sickness or disease, or death of any person;
  - d. claims for damages, other than to the work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  - e. claims for damages because of bodily injury or death of persons or property damage arising out of the ownership, maintenance or use of any motor vehicle.
3. The policies of insurance required by this Paragraph shall:
  - a. With respect to insurance required by Paragraphs 10.01 A. inclusive, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner who shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
  - b. Include at least the specific coverages and be written for not less than the limits of liability provided in Exhibit A or required by Laws or Regulations, whichever is greater;
  - c. include completed operations insurance;
  - d. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days

prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor.

- e. Remain in effect at least until final payment and at all times thereafter when contractor may be correcting or removing defective work.
- f. Contractor shall purchase and maintain property insurance upon the work at the site in an amount of the full replacement cost thereof (contractor shall be responsible for any deductible or self-insured retention). This insurance shall include the interests of owner, contractor and subcontractors.

4. Supervision and Superintendence

- a. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- b. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

5. Services, Materials, and Equipment

- a. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- b. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the

benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- c. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.
6. Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by contractor in accordance with the laws and regulations of the place of the project which are applicable during the performance of the work.
7. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
8. *Cleaning:* Prior to Substantial Completion of the Work, Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
9. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
10. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer.

#### 10.02 Assignment of Contract

1. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

#### 10.03 Successors and Assigns

1. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

#### 10.04 Severability

1. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in four copies. One counterpart each has been delivered to Owner, Contractor, Engineer, and Agency. All portions of the Contract Documents have been signed, initialed, or identified by Owner and Contractor.

OWNER:

CONTRACTOR

City of Pikeville

By: \_\_\_\_\_

By: \_\_\_\_\_

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

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

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

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

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

Address for giving notices:

Address for giving notices:

243 Main Street

Pikeville, KY 41501

## EXHIBIT A

The limits of liability for insurance required by Article 10 shall provide coverage for not less than the following amount or greater where required by Laws and Regulations.

1. Workers' Compensation and related coverages:
  - a. State: Statutory
  - b. Applicable Federal Statutory
  - c. Employer's Liability \$500,000
2. Contractor's General Liability shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of the Contractor:
  - a. General Aggregate \$2,000,000
  - b. Products – Complete Operations Aggregate \$1,000,000
  - c. Each Occurrence (Bodily injury and property damage) \$1,000,000
  - d. Excess or Umbrella Liability
    - i. General Aggregate \$2,000,000
    - ii. Each Occurrence \$2,000,000
3. Automobile Liability
  - a. Bodily Injury
    - i. Each person \$1,000,000
    - ii. Each Accident \$2,000,000
  - b. Property Damage
    - i. Each Accident \$1,000,000
  - c. Combined Single Limit of \$1,000,000
4. Owner and Engineer to be endorsed and included on policies as additional insureds with the coverage being primary.



## StormLock® Permeable Concrete Pavers

*HydraBric™, HydraStone®, EcoFlo® & Eco Tri-Paver Specification*

**Note:** This guide specification for U.S. applications describes construction of permeable interlocking concrete pavers on a permeable, open-graded crushed stone bedding layer (typically No.9 stone). This layer is placed over an open-graded base (typically No. 8 stone) and sub-base (typically No. 2 stone). The pavers and bedding layer are placed over an open-graded crushed stone base with exfiltration to the soil subgrade. In low infiltration soils or installations with impermeable liners, some or all drainage is directed within 24-36 hours to an outlet **via perforated drain pipes in the subbase**. While this guide specification does not cover excavation, liners and drain pipes, notes are provided on these aspects.

The text must be edited to suit specific project requirements. It should be reviewed by a qualified civil or geotechnical engineer, or landscape architect familiar with the site conditions. Edit this specification term as necessary to identify the design professional in the General Conditions of the Contract.

### PART 1 GENERAL

#### 1.00 MANUFACTURER

##### A, AMERICAN RECOVERY & REINVESTMENT ACT (ARRA) COMPLIANT

1. Reading Rock manufactured products are fully compliant with the “Buy America” Requirements of the American Recovery & Reinvestment Act of 2009. (aka: Stimulus or Recovery Act)
2. National Pre-Cast Concrete Association (NPCA) Certified Plant

#### 1.01 SUMMARY

##### A. Section Includes

1. Permeable interlocking concrete pavers.
2. Crushed stone bedding material.
3. Open-graded subbase aggregate.
4. Open-graded base aggregate.
5. Bedding and joint/opening filler materials.
6. Edge restraints.
7. [Geotextiles].

##### B. Related Sections

1. Section [ ]: Curbs.
2. Section [ ]: [Stabilized] aggregate base.
3. Section [ ]: [PVC] Drainage pipes
4. Section [ ]: Impermeable liner.
5. Section [ ]: Edge restraints.
6. Section [ ]: Drainage pipes and appurtenances.
7. Section [ ]: Earthworks/excavation/soil compaction

## 1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM)
  - 1. C 131, Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
  - 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 936, Standard Specification for Solid Interlocking Concrete Pavers
  - 5. C 1645, Standard test method for Freeze – thaw and De-icing Salt Durability of solid concrete interlocking paving units.
  - 6. C 979, Specification for Pigments for Integrally Colored Concrete.
  - 7. D 448, Standard Classification for Sizes of Aggregate for Road and Bridge Construction.
  - 7. D 698, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5-lb (2.49 kg) Rammer and 12 in. (305 mm) drop.
  - 9. D 1557, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (4.54 kg) Rammer and 18 in. (457 mm) drop.
  - 10. D 1883, Test Method for California Bearing Ratio of Laboratory-Compacted Soils.
  - 11. D 2922, Standard Test Methods for Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth)
  - 11. D 4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.

## 1.03 SUBMITTALS

- A. In accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Manufacturer's drawing and details: Indicate perimeter conditions, junction with other materials, expansion and control joints, paver [layout,] [patterns,] [color arrangement,] installation [and setting] details. Indicate layout, pattern, and relationship of paving joints to fixtures and project formed details.
- C. Minimum 3 lb (2 kg) samples of subbase, base and bedding aggregate materials.
- D. Sieve analysis of aggregates for subbase, base and bedding materials per ASTM C 136.
- E. Soils report indicating density test reports, classification, and infiltration rate measured on-site under compacted conditions, and suitability for the intended project.
- F. Erosion and sediment control plan.
- G. [Stormwater management (quality and quantity) calculations.]
- H. Permeable concrete pavers:
  - 1. Manufacturer's submittal color sheets with specifications.
  - 2. [Four] representative full-size samples of each paver type, thickness, color, and finish. Submit samples indicating the range of color expected in the finished installation.
  - 3. Accepted samples become the standard of acceptance for the work of this Section.
  - 4. Laboratory test reports certifying compliance of the concrete pavers with ASTM C 936.
  - 5. Manufacturer's material safety data sheets for the safe handling of the specified materials and products.
  - 6. Manufacturer's written quality control procedures including representative samples of production record keeping that ensure conformance of paving products to the project specifications.
- H. Paver Installation Subcontractor:
  - 1. A copy of Subcontractor's current certificate from the Reading Rock Concrete Paver Installer Certification program or equivalent.
  - 2. Job references from projects of a similar size and complexity. Provide Owner/Client/General Contractor names, postal address, phone, fax, and email address.
  - 3. Written Method Statement and Quality Control Plan that describes material staging and flow, paving direction and installation procedures, including representative reporting forms that ensure conformance to the project specifications.

#### 1.04 QUALITY ASSURANCE

- A. Paver Installation Subcontractor Qualifications:
  - 1. Utilize a commercial 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 or equivalent.
- B. Regulatory Requirements and Approvals: [Specify applicable licensing, bonding or other requirements of regulatory agencies.].
- C. **Pre-Construction Meeting:** General Contractor project manager shall schedule this meeting with all parties listed to review the manufacturers' quality control plan, paver installation subcontractor's Method Statement and Quality Control Plan. Attendees will include a representative from Reading Rock, paver installation subcontractor, landscape architect, civil engineer, architect, and owner's agent.
- D. Field Quality Control: Owner will assume all costs related in obtaining any or all test results for their particular paver project.
- E. Mock-Ups:
  - 1. Install an approx. 3' x 3' paver area.
  - 2. Use this area to determine surcharge of the bedding 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.
  - 5. If mock-up is not retained, remove and properly dispose of mock-up.

#### 1.05 DELIVERY, STORAGE, AND 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 container packaging with identification tags intact on each paver bundle.
  - 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 cubes capable of transfer by forklift or clamp lift.
  - 3. Unload pavers at job site in such a manner that no damage occurs to the product or existing construction
- D. Storage and Protection: Store materials in protected area such that they are kept free from mud, dirt, and other foreign materials.
- E. Visual Inspection: All units shall be sound and free of defects that would interfere with proper placing of the unit or impair the strength or permanence of the construction. Minor cracks incidental to the usual methods of manufacture, or minor chipping resulting from customary methods of handling in shipping and delivery, shall not be deemed as grounds for rejection.

#### 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Do not install in rain or snow.
- B. Do not install frozen bedding materials.

#### 1.07 MAINTENANCE

- A. Extra materials: Provide [Specify area] [Specify percentage] additional material for use by owner for maintenance and repair.
- B. Pavers shall be from the same production run as installed materials.
- C. Reading Rock recommends annual sweeping and vacuuming of the pavers with either a municipal street sweeper or walk behind for smaller applications. Re-sweeping of the fill chips around the paver voids may be necessary after visual inspection. A regular maintenance program will assist in assuring optimal infiltration of storm water over a longer period of time.
- D. Reading Rock paver products are manufactured to meet industry standards and are thus de-icing salt resistant; however, caution should be used when applying de-icing chemicals and

excessive use should always be avoided as it may cause damage to the paver surface. Additionally, Reading Rock recommends using calcium based products or rock salt only. Do not use magnesium based products as they are very aggressive and may cause damage to the paver surface.

**PART 2 PRODUCTS**

*Note: Some projects may include permeable and solid interlocking concrete pavements. Specify each product as required.*

- A. Manufacturer: Reading Rock, Inc. 4600 Devitt Dr. Cincinnati, OH 45246 O: 800.482.6466
- B. Basis of Design Permeable Interlocking Concrete Paver Units:
  - 1. Paver Type: Hydrabric II
    - a. Material Standard: Comply with ASTM C 936.
    - b. Color: Granite
    - c. Color Pigment Material Standard: Comply with ASTM C 979.
    - d. Size: 4 inches x 8 inches x 3.125 inches thick.

**2.01 PERMISSIBLE VARIATIONS IN DIMENSIONS**

- A. Length of width of units shall not differ by more than plus or minus 1/16 in. from approved samples. Heights of units shall not differ by more than plus or minus 1/8 in. from the specified standard dimension.

**2.02 PRODUCT SUBSTITUTIONS**

- A. No substitutions permitted.

**2.03 CRUSHED STONE FILLER, BEDDING, BASE AND SUBBASE**

- A. Crushed stone with 90% fractured faces, LA Abrasion < 40 per ASTM C 131, minimum CBR of 80% per ASTM D 1883.
- B. Do not use rounded river gravel.
- C. All **Sub-Base aggregates** will be no > 2% passing the No. 200 sieve.
- D. All **Base and Bedding aggregates** shall be washed with less then 2% passing the No. 200 sieve.
- D. Joint/opening filler, bedding, base and sub-base conforming to ASTM D 448 gradation.

**Aggregate Table:**

States	Sub-base	Base	Bedding	Joint/Fill Chips
Ohio	ASTM No.2	ASTM No.57	ASTM No.9	ASTM No.9
Kentucky	ASTM No.2	ASTM No.57	ASTM No.9	ASTM No.9
Indiana	INDOT No.2	INDOT No.8	INDOT No.11	INDOT No.11

**Note: Reading Rock recommends (if available) washed ASTM No.11 Joint/Fill Chips for the HydraStone paver.**

- 1. D<sub>15</sub> base stone /D<sub>50</sub> bedding stone < 5.
- 2. D<sub>50</sub> base stone/D<sub>50</sub> bedding stone > 2.

**NOTE: BITUMINOUS SETTING BED APPLICATIONS**

ASTM C-936 allows for dimensional tolerances of plus or minus 1/8" in height of a paver. The allowable height difference may be more noticeable on units installed over a level and/or rigid bituminous setting bed throughout the field of pavers. This does not constitute as defective product.

## 2.04 ACCESSORIES

- A. Provide accessory materials as follows:

*Note: Curbs will typically be cast-in-place concrete or precast set in concrete haunches. Concrete curbs may be specified in another Section. Do not use plastic edging with steel spikes to restrain the paving units.*

1. Edge Restraints
  - a. Manufacturer: Snap Edge by SEK
2. Non-woven Geotextile Fabric:
  - a. Material Type and Description:

## PART 3 EXECUTION

### 3.02 EXAMINATION

*Note: The elevations and surface tolerance of the soil subgrade determine the final surface elevations of concrete pavers. The paver installation contractor cannot correct deficiencies excavation and grading of the soil subgrade with additional bedding materials. Therefore, the surface elevations of the soil subgrade should be checked and accepted by the General Contractor or designated party, with written certification presented to the paver installation subcontractor prior to starting work.*

- 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.

*Note: Compaction of the soil subgrade should be determined by the project engineer. If the soil subgrade requires compaction, compact to a minimum of 95% standard Proctor density per ASTM C 698. Compacted soil density and moisture should be checked in the field with a nuclear density gauge or other test methods for compliance to specifications. Stabilization of the soil and/or base material may be necessary with weak or continually saturated soils, or when subject to high wheel loads. Compaction will reduce the permeability of soils. If soil compaction is necessary, reduced infiltration may require drain pipes within the open-graded sub base to conform to local storm drainage requirements.*

- a. Verify that subgrade preparation, compacted density and elevations conform to specified requirements.
  - b. Provide written density test results for soil subgrade to the Owner, General Contractor and paver installation subcontractor.
  - c. Verify location, type, and elevations of edge restraints, [concrete collars around] utility structures, and drainage pipes and inlets.
2. Do not proceed with installation of bedding and interlocking concrete pavers until subgrade soil conditions are corrected by the General Contractor or designated subcontractor.

### 3.03 PREPARATION

- A. Verify that the soil subgrade is free from standing water.
- B. Stockpile joint/opening filler, base and subbase materials such that they are free from standing water, uniformly graded, free of any organic material or sediment, debris, and ready for placement.
- C. Edge Restraint Preparation:
1. Install edge restraints per the drawings [at the indicated elevations].

### 3.04 INSTALLATION

*Note: The minimum slope of the soil subgrade should be 0.5%. Actual slope of soil subgrade will depend on the drainage design and exfiltration type. All drainpipes, observation wells, overflow pipes, geotextile (if applicable) and impermeable liner (if applicable) should be in place per the drawings prior to or during placement of the subbase and base, depending on their location. Care must be taken not to damage drainpipes during compaction and paving. No mud or sediment can be left on the base or bedding aggregates. If they are contaminated, they must be removed and replaced with clean materials.*

#### A. General

1. Any excess thickness of soil applied over the excavated soil subgrade to trap sediment from adjacent construction activities shall be removed before application of the [geotextile] and subbase materials.
2. Keep area where pavement is to be constructed free from sediment during entire job. [Geotextiles] Base and bedding materials contaminated with sediment shall be removed and replaced with clean materials.
3. Do not damage drainpipes, overflow pipes, observation wells, or any inlets and other drainage appurtenances during installation. Report any damage immediately to the project engineer.

#### B. Geotextiles

1. Place on [bottom and] sides of soil subgrade. Secure in place to prevent wrinkling from vehicle tires and tracks.
2. Overlap a minimum of [0.3 in (12 in.)] [0.6 m (24 in.)] in the direction of drainage.

#### C. Open-graded subbase and base

1. Moisten, spread and compact the sub-base in 4 to 6 in. (100 to 150 mm) lifts [without wrinkling or folding the geotextile. Place subbase to protect geotextile from wrinkling under equipment tires and tracks.]
2. For each lift, make at least two passes in the vibratory mode then at least two in the static mode with a minimum 10 t (10 T) vibratory roller until there is no visible movement of the sub-base stone. Do not crush aggregate with the roller.
3. The surface tolerance of the compacted sub-base shall be  $\pm 2 \frac{1}{2}$  in. ( $\pm 65$ mm) over a 10 ft (3 m) straightedge.
4. Moisten, spread and compact base stone in 100 mm (4 in.) lift over the compacted sub-base with a minimum 10 t (10 T) vibratory roller until there is no visible movement of the base stone. Do not crush aggregate with the roller.
5. The surface tolerance the compacted base stone should not deviate more than.  $\pm 1$  in. (25 mm) over a 10 ft (3 m) straightedge.

- D. **SUB-BASE STONE INSPECTION:** Reading Rock requires the site contractor/excavator to notify the local Reading Rock representative, general contractor/project manager, specifier, landscape architect, civil engineer, owner agent and paver installation contractor to inspect and sign off on compliance of only the **Sub-Base (No. 2)** aggregates after installation. By not doing so the site contractor assumes all liability and costs associated for any infiltration and/or structural support problems that might occur due to not conforming to the installation specifications.

*Note: In-place density of the base and subbase may be checked per ASTM D 4254. Compacted density should be 95% of the laboratory index density established for the subbase and base stone.*

#### E. Bedding layer

1. Moisten, spread and screed the stone bedding material.
2. Fill voids left by removed screed rails with bedding stone.
3. The surface tolerance of the screeded bedding layer shall be  $\pm 3/8$  in (10 mm) over a 10 ft (3 m) straightedge.
4. Do not subject screeded bedding material to any pedestrian or vehicular traffic before paving unit installation begins.

- F. Permeable interlocking concrete pavers and joint/opening fill material
  1. Lay the pavers [paving slabs] in the pattern(s) and joint widths shown on the drawings. Maintain straight pattern lines.
  2. Fill gaps at the edges of the paved area with cut units. Cut pavers subject to tire traffic shall be no smaller than 1/4 of a whole unit.
  3. Cut pavers and place along the edges with a [double-bladed splitter or] masonry saw.
  4. Fill the openings and joints with joint/fill chips.
  5. Chipping and surface blemishes are not uncommon and may occur due to the aggregate used when compacting the permeable paver product.

*Note: Some paver joint widths may be narrow and not accept most of the No. 8 stone. Use joint material that will fill joints such as washed ASTM No. 10 stone.*

5. Remove excess aggregate on the surface by sweeping pavers clean.
6. Compact and seat the pavers into the bedding material using a low-amplitude, 75-90 Hz plate compactor capable of at least 4,000 lbs (18 kN) centrifugal compaction force. This will require at least two passes with the plate compactor.
7. Do not compact within 6 ft (2 m) of the unrestrained edges of the paving units.
8. Apply additional aggregate to the openings and joints, filling them completely. Remove excess aggregate by sweeping then compact the pavers. This will require at least two passes with the plate compactor.
9. All pavers within 6 ft (2 m) of the laying face must be left fully compacted at the completion of each day.
10. The final surface tolerance of compacted pavers shall not deviate more than  $\pm 3/8$  (10 mm) under a 10 ft (3 m) long straightedge.
11. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

### **3.05 FIELD QUALITY CONTROL**

- A. After sweeping the surface clean, check final elevations for conformance to the drawings.
- B. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.

*Note: The minimum slope of the finished pavement surface should be 1%. The surface of the pavers may be 1/8 to 1/4 in. (3 to 6 mm.) above the final elevations after compaction. This helps compensate for possible minor settling normal to pavements.*

- C. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

### **3.06 PROTECTION**

- A. After work in this section is complete, the General Contractor shall be responsible for protecting work from sediment deposition and damage due to subsequent construction activity on the site.

## **4.0 HARDSCAPE PRODUCT WARRANTY**

Reading Rock, Inc. ("Reading Rock") warrants its manufactured hardscapes products (i.e., paving stones, retaining and seat walls, AB Fence System and landscape accents) to meet ASTM manufacturing guidelines and specifications intended for residential applications for the life of the product, provided the products have been properly installed, used and maintained according to industry accepted guidelines and as recommended by the manufacturer. Reading Rock warrants pavers manufactured with ColorLock to meet ASTM C979 standard specifications for pigments used in the coloring of concrete products. This warranty does not cover damage resulting from improper installation, abuse, excessive use or mis-use of concrete de-icers (especially those that contain a magnesium formulation), fertilizers, accidents, Acts of God, erosion from water, fire, normal wear and tear, unauthorized modifications, misuse, or failure to properly maintain. This warranty is limited to the products' original purchaser and proof of purchase is

required. Reading Rock production tags from the warranted product must accompany all requests for warranty. This warranty is not transferable.

Defective or otherwise non-conforming manufactured products shall be removed and returned to Reading Rock, at the customer's sole cost and expense, where they will be tested by a certified materials laboratory in accordance to applicable ASTM standards. Any product that does not meet applicable ASTM specifications or acceptance criteria will be replaced by Reading Rock. Reading Rock's liability and the customer's exclusive and sole remedy for breach of warranty will be limited to replacement of the goods, or at Reading Rock's sole and absolute option, refund of the purchase price of any goods. Reading Rock's warranty does not include any other costs, including the cost of labor for replacement. Exact color matching and shape of replacement materials cannot be guaranteed. Reading Rock, in its sole and absolute discretion, may provide customer with an alternate color and/or shape available from its current product line at the time a warranty claim is accepted.

Due to the nature of the product and the manufacturing process, "efflorescence" may be present and does not constitute defective product. Efflorescence is a whitish, powder-like deposit that may appear on concrete products. It in no way affects the structural integrity of the concrete product and will wash and wear off over time. Industry acceptable products are available to assist in the cleaning and removal of efflorescence. The use of concrete setting beds may also increase the possible occurrence of efflorescence. Because this is a natural occurrence, Reading Rock accepts no responsibility or liability for this condition.

Reading Rock recommends allowing 8cm pavers to cure for two weeks after the manufacturing date to ensure the product reaches full strength. Installing pavers prior to and utilizing heavy machinery on top of the pavers, could result in damage to the product and Reading Rock will not be responsible for this damage.

Reading Rock paver products are manufactured to meet industry standards and are thus de-icing salt resistant; however, caution should be used when applying de-icing chemicals and excessive use should always be avoided as it may cause damage to the paver surface. Additionally, Reading Rock recommends using calcium based products or rock salt only. Do not use magnesium based products as they are very aggressive and may cause damage to the paver surface.

THERE ARE NO WARRANTIES OFFERED BY READING ROCK BEYOND THIS EXPRESS WARRANTY. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND READING ROCK MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS OF THE GOODS SOLD FOR ANY PARTICULAR PURPOSE, PARTICULARLY AS TO RESULTS OBTAINABLE BY THE CUSTOMER, OR ITS CUSTOMERS OR ASSIGNS IN THE USE OF SUCH PRODUCTS. ANY SAMPLES PROVIDED ARE NOT TO BE CONSIDERED WARRANTIES OF GOODS. READING ROCK'S LIABILITY AND THE CUSTOMER'S EXCLUSIVE AND SOLE REMEDY FOR BREACH OF WARRANTY WILL BE LIMITED TO REPLACEMENT OF THE GOODS, OR, AT READING ROCK'S OPTION, REFUND OF THE PURCHASE PRICE OF ANY GOODS. READING ROCK CANNOT GUARANTEE THAT THE COLOR OF ANY REPLACEMENT GOODS WILL MATCH THE COLOR OF THE DEFECTIVE GOODS OR OF ORIGINAL GOODS WHICH ARE NOT REPLACED, AND REPLACEMENT LABOR IS NOT INCLUDED. READING ROCK WILL HAVE NO LIABILITY BEYOND THE PURCHASE PRICE NOR WILL READING ROCK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES INCURRED IN CONNECTION WITH THE GOODS. THIS WARRANTY SPECIFICALLY DOES NOT APPLY TO (I) MANUFACTURED HARDSCAPE PRODUCTS SOLD BY READING ROCK ON AN "AS IS" BASIS, SUCH AS "OVERRUNS", "SECONDS" AND "IRREGULARS", OR (II) ANY PRODUCTS SOLD BY READING ROCK BUT NOT MANUFACTURED BY READING ROCK.

The laws of the State of Ohio govern this warranty. For complete information regarding the sale of Reading Rock's products, please see the Terms & Conditions of Sale on the Reading Rock web site; [www.readingrock.com](http://www.readingrock.com).

*Revised: 6/19/2015*

## Section 2721

### Engineered Surface Drainage Products

#### GENERAL

PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

#### MATERIALS

The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermo-molding process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

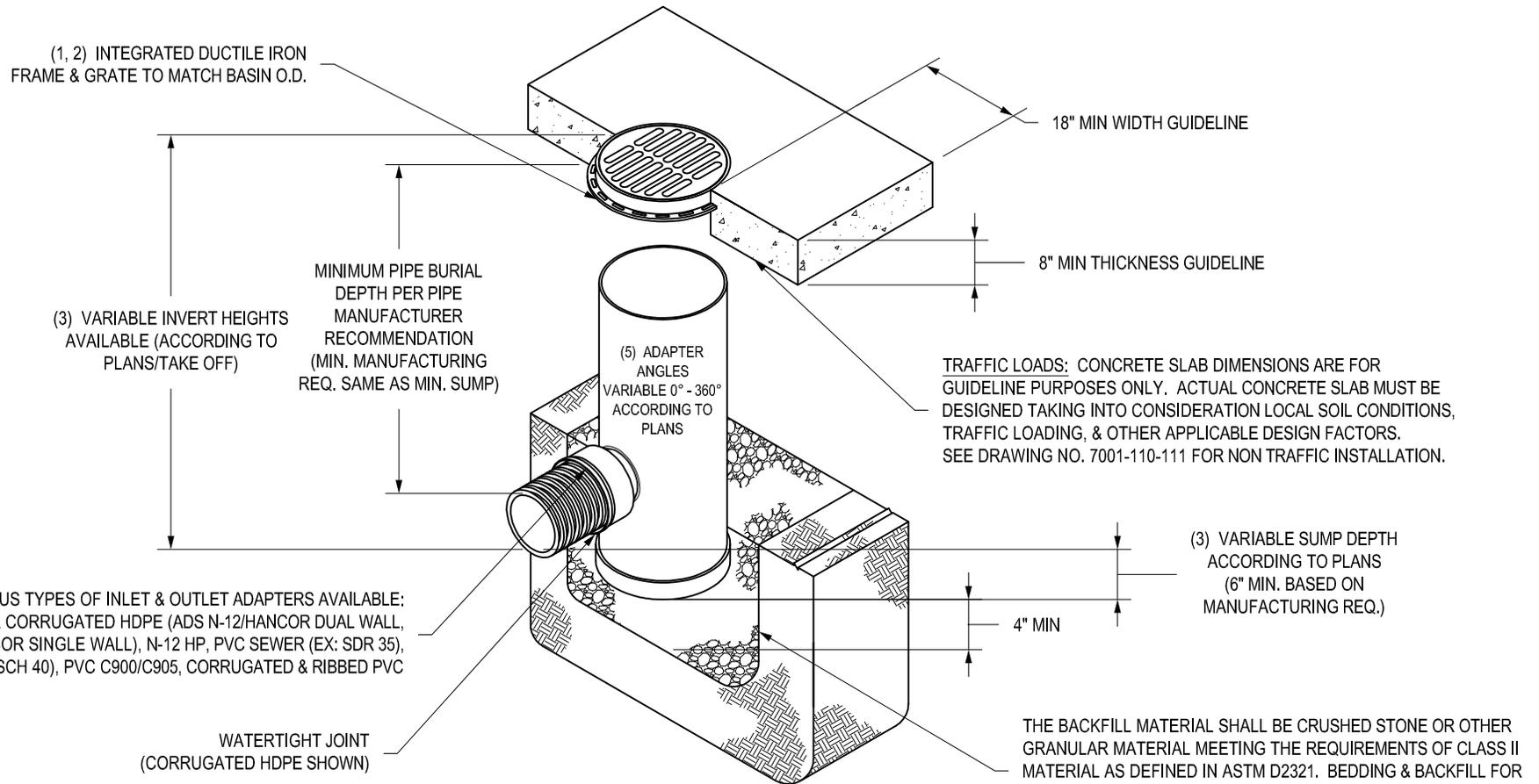
The grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting H-20 wheel loading for traffic areas or H-10 loading for pedestrian areas. 12" and 15" square grates will be hinged to the frame using pins. Metal used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05 for ductile iron. Grates shall be provided painted black.

#### INSTALLATION

The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 2 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For H-20 load rated installations, a concrete ring will be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

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	DATE	3-10-00	PROJECT NO./NAME						
	REVISED BY	EBC	TITLE						
	DATE	2-9-10	8 IN - 30 IN DRAIN BASIN SPECIFICATIONS						
DWG SIZE	A	SCALE	1:1	SHEET	1 OF 1	DWG NO.	7001-110-011	REV	F

# NYLOPLAST 18" DRAIN BASIN: 2818AG \_\_ X



(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE:  
 4" - 18" FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL), N-12 HP, PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

WATERTIGHT JOINT  
 (CORRUGATED HDPE SHOWN)



- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
- 4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
- 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899CGP	7001-110-212
STANDARD	MEETS H-20	1899CGS	7001-110-213
SOLID COVER	MEETS H-20	1899CGC	7001-110-214
DOME	N/A	1899CGD	7001-110-215
DROP IN GRATE	LIGHT DUTY	1801DI	7001-110-074

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DRAWN BY	EBC	MATERIAL
DATE	4-3-06	
REVISED BY	EBC	PROJECT NO./NAME
DATE	3-10-10	
DWG SIZE	A	SCALE 1:30 SHEET 1 OF 1



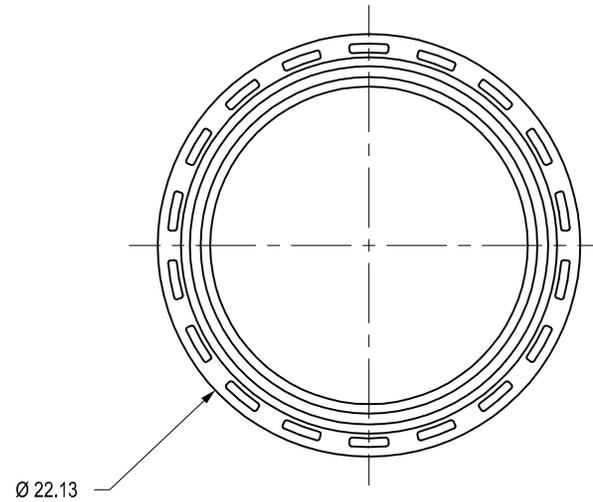
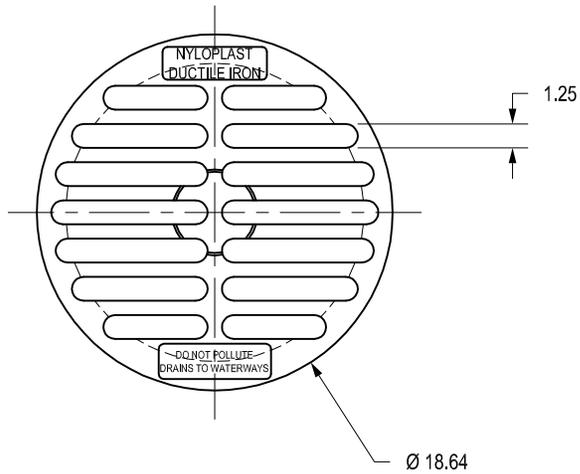
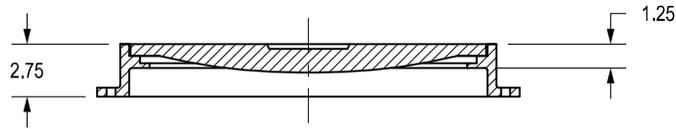
**Nyloplast**

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TITLE	18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL	
DWG NO.	7001-110-191	REV C

# 1899CGS

APPROX. DRAIN AREA = 116.72 SQ IN  
 APPROX. WEIGHT WITH FRAME = 68.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY  
 ACTUAL DIMENSIONS MAY VARY  
 DIMENSIONS ARE IN INCHES  
 GRATE MEETS H-20 LOAD RATING  
 QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05  
 PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT  
 LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO.  
 7001-110-029

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DRAWN BY	EBC	MATERIAL
DATE	3-8-06	DUCTILE IRON
REVISED BY	EBC	PROJECT NO./NAME
DATE	3-13-10	
DWG SIZE	A	SCALE 1:10 SHEET 1 OF 1

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TITLE  
 18 IN STANDARD GRATE ASSEMBLY - TYPE C

DWG NO. 7001-110-213 REV C