

INSTRUCTIONS TO BIDDERS

SUBSURFACE BORING, SAMPLING AND TESTING CONTRACT FOR

ON-CALL DRILLING

**Various Locations in Fayette,
Greene, Washington, Westmoreland Counties**

Issued by

Pennsylvania Department of Transportation

Geotechnical Unit

Engineering District 12-0

Dated

November 2017

ARTICLE A – GENERAL

Section A-1 - The following instructions are for the information and guidance of Contractors submitting a proposal for the subject Subsurface Boring, Sampling and Testing Contract.

Section A-2 – Definitions. The “Engineer” referred to in the Contract documents is the party issuing these Instructions to Bidders and is referred to as the “Department” in regards to the completion of the subject Subsurface Boring, Sampling and Testing Contract. If issued by the Department, the Department will also be considered as the “Engineer”. All other parties are as defined in the August 2015 Publication 222 for Subsurface Boring, Sampling and Testing.

Section A-3 – The contract documents shall consist of a modified version of the August 2015 Publication 222 to be used only for this District 12-0 on-call drilling contract and Purchase Order, and all subsequent addenda and modifications. These documents are essential parts of this Contract and are intended to be complementary and to describe and provide for the complete work. A requirement occurring in one document is as binding as though occurring in all.

In case of discrepancy, the document requiring the most demanding and costly alternative for the contractor shall be given priority when bidding.

ARTICLE B – LOCATION OF BORINGS

Section B-1 – The test boring locations for the subject Subsurface, Boring, Sampling and Testing Contract are at various sites and locations throughout Engineering District 12-0 including Fayette, Greene, Washington, and Westmoreland Counties.

ARTICLE C – SCOPE OF WORK

Section C-1 – The estimated work item quantities for this test boring program are set forth in the Bid Proposal.

These quantities are estimates only. The quantities stipulated in the Bid Proposal have been issued for the purpose of comparing bids and, as such, are subject to change by the Engineer.

The actual locations and depths of undisturbed soil samples, special field tests, and/or borehole instrumentation will be determined by the Engineer during the course of the drilling contract.

Section C-2 – The contractor will be required to furnish, at the Engineers request, one or more of three (3) fully equipped, operating and manned drilling machines with a minimum full time crew of two persons per rig, including one qualified driller and one helper. The first rig must have the capability of producing 12,698 N-m (9366 ft – lbs) of torque. The second rig must be capable of producing 6413 N-m (4730 ft – lbs) of torque, be capable of working in adverse terrain as well as on road surfaces, and capable of moving between holes under its own power. The third rig must be capable of auguring to a minimum of 9.1 m (30 feet) and coring to a minimum of 15.2m (50 feet), produce a minimum of 406.8 N-m (300 ft – lbs) of torque, be manually transportable, and be capable of working in low overhead and extremely inaccessible locations. At a minimum, two of the above mentioned rigs must be track mounted.

Calibrated annually automatic hammer on the first and second rig with 80 to 90 percent efficiency.

Must have air-drilling capabilities when needed.

Water boring equipment capable of drilling on water with depths of 30 feet.

Borings drilled for structures must use equipment capable of providing core recoveries greater than 50% in soft rock or the drill rig and/or equipment will need replaced and the boring will need re-drilled at no additional cost to the Department, with a drill rig and/or equipment capable of providing satisfactory core recoveries in soft rock.

A portable grout pump with a (min. 150L) mixing tank and pump capable of delivering (38 gpm) at 1550 kPa min. The grout pump must be capable of pumping cement mixes, cement/bentonite mixes, and cement/sand mixes.

Section C-3 – The original handwritten driller’s field log for each boring must be submitted to the Engineer at the completion of the boring. Typed copies of the logs must be submitted to the Engineer within two (2) days of completion of each boring.

Section C-4 – If directed by the Engineer, provide a backhoe with a minimum of 60 horsepower and a minimum reach of 15’ for the purpose of excavating test pits and/or providing access to borings.

Section C-5 – Contractor must provide to the Department two (2) transportable cellular telephones, Blackberry curve or equivalent, with attachments and the following accessories: (a) rechargeable batteries; and car charger. (b) unlimited calling and text messaging capability within PENNDOT District 12-0, for the duration of the contract.

Section C-6 – Contractor must submit name and active land line office phone and fax number of Full-Time Office Manager available for direct contact for scheduling, invoicing, one-call submissions, etc. between the hours of 7:30 am to 3:30 pm Monday through Friday for the duration of the contract. Full-Time Office Manager must respond to messages and faxes within a reasonable amount of time from the active land line office phone but no more than three (3) hours after a call or request. A Class A driller must comply with Publication 222 Table 1.1 Criteria Chart for Class A Driller for having a Full-Time Office Manager. Contact via a cell phone number is not acceptable.

ARTICLE D – SUBMISSION AND COMPARISON OF PROPOSALS

Section D-2 – Enclose a proposal guaranty of ten (10%) percent of the PROPOSED TOAL COST OF CONTRACT, but no less than \$50.00, with the proposal as a guaranty that in the event the proposal is accepted and the contract awarded, the Contract will be duly executed and its performance duly secured by the required Contract Bond and Additional Bond for Labor and Materials. The proposal guaranty shall be in the form of a Cashier’s Check, a Treasurer’s Check, a Certified Check, or a Proposal Guaranty Bond with surety made out to the Pennsylvania Department of Transportation.

Where the bidder does not comply with his proposal and does not provide a Contract Bond and an Additional Bond for Labor and Materials in a satisfactory and timely manner, if award is made to him, the proceeds of the Cashier’s, Treasurer’s or Certified Check or Proposal Guaranty bond submitted as a proposal guaranty with this proposal will be forfeited to the use of the Engineer as liquidated damages. All proposal guarantees will be returned when the successful Contractor has executed a contract and has submitted a Contract Bond and an Additional Bond for Labor and Materials.

Section D-3 – Execute and return with the proposal one (1) copy each of the “Affirmative Action Certification” and “Affidavit Accepting Provisions of the Workmen’s Compensation Act” which are describe in Articles F and J and are included as Exhibits B and C of the Instruction to Bidders.

Section D-4 – The bidder to whom the Contract is awarded will be required to execute a “Contract Bond”, covering satisfactory performance of the work contracted, in the penal sum of ½ (50%) percent of the amount of the Contract. Also, execute an “Additional Bond for Labor and Materials”, covering the prompt payment in full for utility services rendered and for all materials furnished and/or labor supplied or performed in the prosecution of the work, also in the penal sum of ½ (50%) percent of the amount of the Contract. Both bonds must also be executed by a corporate surety satisfactory to the Engineer. The same surety must execute both bonds and should any surety upon such bonds become unsatisfactory to the Engineer, the Contractor must promptly furnish such additional security as may be required from time to time to protect the interests of the Engineer, the services, materials, and/or labor in the prosecution of the work contemplated by the Contract. The cost of these bonds shall be included in the unit bid prices.

Section D-5 – The Engineer reserves the right to reject any and all bids, to waive technical defects and to accept or reject any part of any bid, if in the Engineer’s judgment, the Engineer’s and Department’s best interests will be served thereby. In acting on proposals, cash discounts will not be considered.

Section D-6 – The proposal as made will be deemed an offer which may be accepted by the Engineer at any time within one hundred twenty (120) days after bids are opened. When the proposal has been accepted by the Engineer, the Contract Agreement will be executed by the Engineer and the successful bidder shall be the “Contractor”. No other contract documents will be executed by the Engineer.

ARTICLE E – EQUAL EMPLOYEMENT OPPORTUNITY AND NON-DISCRIMINATION

Section E-1 – The Contractor shall abide by the requirements for equal employment opportunity and non-discrimination/sexual harassment clause set forth in General Conditions.

ARTICLE F – DISAVANTAGED BUSINESS ENTERPRISES

Section F-1 – In connection with the performance of this Contract, the Contractor will be required to take Affirmative Action in regard to utilization of Disadvantaged Business Enterprises and will use his best efforts to ensure that Disadvantaged Business Enterprises will have the maximum practicable opportunity to compete for subcontract work under this Contract. The Contractor shall execute and submit with the proposal the “Affirmative Action Certification” which is included as Exhibit B of the Instructions to Bidders.

ARTICLE G – IDENTIFICATION OF SAMPLES AND DOCUMENTS

Section G-1 – All samples, reports and other documents obtained or prepared as a part of this Contract will include the following identification on the label, front cover, or title page in addition to other information required in the Standard Specifications for Subsurface Boring, Sampling and Testing Contract:

Project Name / No., Municipality, Section, Sampling Method (Device),

Surface Elevation, Description / Classification, Sampled by – Date

ARTICLE H – DISPOSITION OF SAMPLES

Section H-1 – The Contractor will be required to remove, at his expense, all samples and core boxes from the job site at the end of each work shift and provide storage until such time as they can be delivered to the designated locations. The storage facilities must conform to the requirements set forth in the Standard Specifications for Subsurface Boring, Sampling and Testing Contract.

After completion of all test borings for each job, the Contractor will be required to deliver, at his expense, all soil samples and rock core boxes to:

Pennsylvania Department of Transportation
825 North Gallatin Avenue, Extension
P. O. Box 459
Uniontown, Pennsylvania 15401
ATTENTION: Geotechnical Unit

Section H-2 – After completion of all test borings and during the delivery procedures, each party responsible for identification and custody of the core boxes is required to fill out the appropriate section of the “Chain of Custody for Subsurface Boring Samples Boxes”, Form TR-440.

The engineer will be responsible to provide this form to the successful low bidder at the beginning of the project.

ARTICLE I – PRE-BID MEETING

Section I-1 – No Pre-Bid meeting will be held. Any questions concerning this contract should be directed to Adam Piper, at 724-323-4896 or by email, at apiper@pa.gov.

ARTICLE J – INSURANCE AND LIABILITY

Section J-1 – Limits of Coverage – The Contractor must procure and/or maintain at its expense the insurance coverage stipulated in the Standard Specifications for Subsurface Boring, Sampling and Testing, all with limitations of not less than:

| <u>Type of Coverage</u> | <u>Limits of Liability</u> | |
|--|-------------------------------|---------------------|
| Bodily Injury | Each Person | \$ <u>500,000</u> |
| | Each Occurrence | \$ <u>1,000,000</u> |
| Property Damage | Each Occurrence | \$ <u>1,000,000</u> |
| | Aggregate | \$ <u>1,000,000</u> |
| | | |
| <u>Type of Coverage</u> | <u>Limits of Liability</u> | |
| Automobile Liability | Each Person | \$ <u>500,000</u> |
| Bodily Injury | Each Occurrence | \$ <u>1,000,000</u> |
| Automobile Liability | Each Occurrence | |
| Property Damage | | \$ <u>1,000,000</u> |
| Workmen’s Compensation | As required by applicable law | |
| Employer’s Liability | Each Occurrence | \$ <u>1,250,000</u> |
| Umbrella Liability (Bodily Injury & Property Damage Combined) | | \$ <u>1,250,000</u> |

Section J-2 – Additional Insured. The Engineer, the Commonwealth, and the Department shall be named as additional insured under the above said Bodily Injury and Property Damage Insurance policies by endorsement thereto and such insurance shall be primary to any other insurance maintained by the Engineer or the Department.

Section J-3 – Workmen’s Compensation. Execute and return with the proposal the “Affidavit Accepting Provisions of the Workmen’s Compensation Act” which is included as Exhibit C of the Instructions to Bidders, to signify acceptance of the provisions of the Workmen’s Compensation Act.

ARTICLE K – MODIFICATIONS TO THE STANDARD SPECIFICATIONS FOR SUBSURFACE BORING, SAMPLING AND TESTING

Section K-1 – Attachment II to these instructions defines specific modifications or additions to be included as part of the Standard Specifications for Subsurface Boring, Sampling and Testing for this contract.

SECTION K – 1
ATTACHMENT II

SPECIAL PROVISIONS

SECTION K-1

ATTACHMENT II

SPECIAL PROVISIONS

The Contractor will be required to furnish, at the Engineers request, one or more of three (3) fully equipped, operating, and manned drilling machines with a minimum full time crew of two (2) persons per rig, including one (1) qualified driller and one (1) helper. The first rig must have the capability of producing 12,698 N-m (9,366 ft-lbs) of torque. The second rig must be capable of producing 6413 N-m (4730 ft-lbs) of torque, be capable of working in adverse terrain as well as on road surfaces, and capable of moving between holes under its own power. The third rig must be capable of auguring to a minimum of 9.1m (30 feet) and coring to a minimum of 15.2 (50 feet), produce a minimum of 406.8 Nm (300 ft-lbs) of torque, be manually transportable, and be capable of working in low overhead and extremely inaccessible locations. At a minimum, two (2) of the above-mentioned rigs must be Track Mounted.

Calibrated annually Automatic Hammer on the first and second rig with 80 to 90 percent efficiency.

Must have air-drilling capabilities when needed.

Water boring equipment capable of drilling on water with depths of 30 feet.

Borings drilled for structures must use equipment capable of providing core recoveries greater than 50% in soft rock or the drill rig and/or equipment will need replaced and the boring will need re-drilled at no additional cost to the Department, with a drill rig and/or equipment capable of providing satisfactory core recoveries in soft rock.

A portable grout pump with a (min. 150L) mixing tank and pump capable of delivering (38 Lpm) @ (1550 kPa) min. The group pump must be capable of pumping cement mixes, cement / bentonite mixes, and cement / sand mixes.

MODIFICATIONS

All work zone traffic control will be done according to Publication 213.

No Lane Restrictions are permitted between 8am to 8pm on S.R. 70 from Chestnut Street Exit 15 and East and S.R. 79 from Laboratory Exit 33 and North.

Contact the following at least 2 weeks prior to any Traffic Control Devices being placed on the Interstates:

- a. Valerie Peterson, PennDOT District 12-0 Community Relations Coordinator at 724-439-7375 and**
- b. PennDOT Washington County Maintenance Manager at 724-223-4480 or**
- c. PennDOT Westmoreland County Maintenance Manager at 724-832-5357 and**

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- d. Washington County Pennsylvania State Police Commanding Officer at 724-223-8500.**
- e. Westmoreland County Pennsylvania State Police Commanding Officer at 724-832-3288.**

No extra payment will be made for borings drilled between 8pm to 8am.

2000-0001 LABORER

DESCRIPTION - This work consists of a laborer(s) to perform non-technical tasks in conjunction with various drilling operations. Provide laborer only when requested by the Engineer. Laborers will only be provided to address special needs of the Department when requested by the Engineer. This item will not be used for site restoration or movement of equipment to and from borings on various drilling sites.

EQUIPMENT AND PROCEDURES – Provide laborer(s) to perform non-technical tasks that are not already the driller’s responsibility, such as but not limited to guide rail removal and assembly, excessive clearing and grubbing and other items as directed by the engineer.

MEASUREMENT AND PAYMENT – Laborer. Hour
Payment per hour per laborer will be considered full payment for all costs associated with providing a laborer(s) including hand tools to perform the above-mentioned tasks. No payment will be made for time lost due to inclement weather.

2000-0002 FLASHING ARROW PANEL AND SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR

DESCRIPTION – This item consists of furnishing a flashing arrow panel and Shadow Vehicle with truck mounted attenuator.

EQUIPMENT AND PROCEDURES – The specifications for the flashing arrow panel will be according to Publication 213. The shadow vehicle will conform to the latest revisions to Publication 213. No flagmen will be included with this item. This item will be used when directed by the Department.

MEASUREMENT AND PAYMENT – FLASHING ARROW PANEL AND SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR:
This item will be measured and paid for at the contract unit price per hour. The payment per hour will be considered full payment for all costs associated with the flashing arrow panel, shadow vehicle and truck mounted attenuator. This includes all labor equipment, signs and supplies for lane and shoulder closures as per Pub 213. No flagmen are included in the item.

2000-0004 SITE VISIT

DESCRIPTION: This item consists of an initial site visit to determine Traffic Control Setup, Photo of job site, One Call Placement, and other details needed to coordinate the Drilling effort. The PA One Call Serial Number, photo of job site, and traffic control figure number must be supplied to District 12 Geotechnical Engineer or his designee prior to work on each project. Contact with the property owner must be made prior to start of work. The name of the property owner may or may not be supplied by the department.

MEASUREMENT AND PAYMENT: This item will be measured and paid for at the contract unit price each.

2000-0005 SLIDE BORINGS

DESCRIPTION: This item will consist of the movement of all Drilling Equipment, Soil Sampling and Rock Coring for slide investigations as directed by the Engineer. The Engineer will determine which projects are slides when the request for drilling is sent to the driller.

EQUIPMENT AND PROCEDURE: The proper equipment for winching or movement of Skid or Track Rig for access and drilling of borings, and removal of equipment.

MEASURE AND PAYMENT: This item will be measured and paid for at the contract unit price per lineal foot.

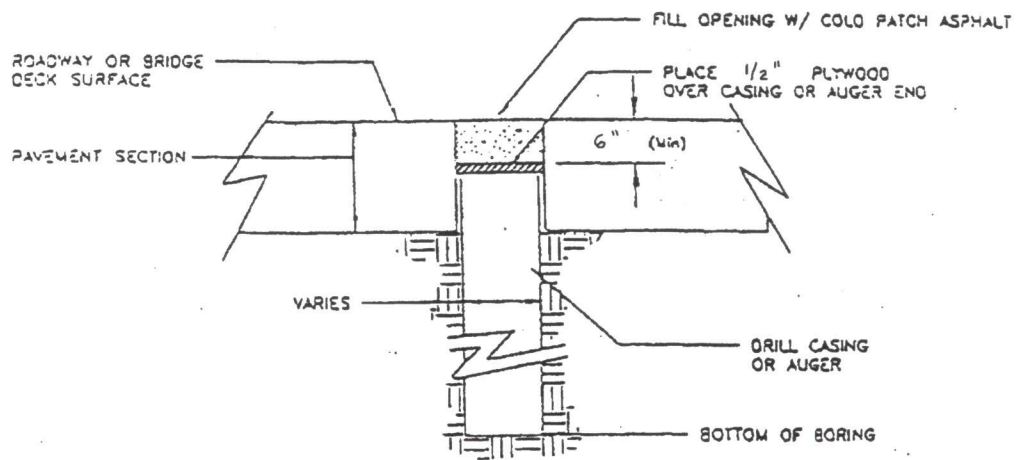
2000-0008 FLASHING ARROW PANEL AND SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR AT NIGHT

DESCRIPTION – This item consists of furnishing a flashing arrow panel and Shadow Vehicle with truck mounted attenuator at night.

EQUIPMENT AND PROCEDURES – The specifications for the flashing arrow panel will be according to Publication 213 at night. The shadow vehicle will conform to the latest revisions to Publication 213. No flagmen will be included with this item. This item will be used when directed by the Department.

MEASUREMENT AND PAYMENT – FLASHING ARROW PANEL AND SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR AT NIGHT:

This item will be measured and paid for at the contract unit price per hour. The payment per hour will be considered full payment for all costs associated with the flashing arrow panel, shadow vehicle at night and truck mounted attenuator. This includes all labor equipment, signs and supplies for lane and shoulder closures as per Pub 213. No flagmen are included in the item.



TEMPORARY BACKFILL DETAIL
FOR
BORINGS IN ROADWAY
N.T.S.

FIGURE 210 (a)

