



**GREENSBORO**  
NORTH CAROLINA

# Cleaning & Video Inspection of Gravity Sewer Lines



*Submitted by*

**Precision Measurements, Inc.**

**dba PMI Inc.**





# PRECISION MEASUREMENTS, INC. dba PMI, INC.

*CCTV Inspections ♦ Cleaning ♦ Smoke Testing*

October 2, 2018

Jana Stewart, PE  
City of Greensboro Water Resources Department  
2602 S. Elm-Eugene Street  
Greensboro, NC 27406

**RE: Cleaning and Video Inspection of Gravity Sewer Lines**

Miss. Stewart,

PMI Inc. is pleased to submit our statement of interest and qualifications to provide the City of Greensboro with CCTV services for the Cleaning and Video Inspection of Gravity Sewer Lines contract. Please find enclosed one (1) original and two (2) copies of our proposal.

Precision Measurements, Inc. (PMI) is a small, woman-owned, full service Land Surveying firm headquartered out of Virginia Beach, Virginia with several branch offices along the east coast. PMI is currently certified by the Virginia Department of Transportation (VDOT), Maryland Department of Transportation (MDOT), District Department of Transportation (DDOT), City of Baltimore, Washington Metropolitan Area Transit Authority (WMATA), and the Metropolitan Washington Airports Authority (MWAA) as a Disadvantaged Business Enterprise (DBE) and by the Commonwealth of Virginia Minority Business Enterprise as a Small Woman and Minority business (SWAM). Precision Measurements, Inc. is considered a foreign corporation in North Carolina, doing business as (dba) PMI, Inc. (SOSID 1728322) to provide CCTV services. PMI, Inc. offers the same personnel, qualifications, experience, and state-of-the-art technology as Precision Measurements, Inc. and has recently applied for DBE status with NCDOT. Additionally, PMI, Inc. adheres to the same corporate structure, safety guidelines, QA/QC process, and methodologies.

PMI Inc. offers PACP & LACP inspections in order to locate large infiltration and inflow issues, manhole inspections (MACP) and rehabilitation, and CCTV and cleaning services from laterals to main line, which includes lateral launch from main line to clean-out. PMI Inc. can also install Vac-A-Tee cleanout on laterals, if needed. Additionally, PMI Inc. is able to provide smoke testing and flow monitoring services with highly-trained staff touting over 1 million feet of smoke testing and flow monitoring experience.

PMI Inc. is capable of managing projects from complete comprehensive rehabilitation of entire piping systems to rehabilitation of lateral connections. PMI Inc.'s CCTV staff has over 35 years of combined experience and has performed more than five-million feet of CCTV services, more than two-million feet of pipe rehabilitation along with 2,500 laterals rehabilitated, and more than 700,000 vertical feet rehabbed in manholes. Additionally, our staff has construction supervising experience for commercial and residential projects, from initial site preparation through final warranty work for projects.

Should PMI Inc. be awarded the Cleaning and Video Inspection of Gravity Sewer Lines contract, we will accept all City of Greensboro Standard Terms and Conditions as provided in "Attachment A."

From the enclosed information, we hope you and the selection committee will find that PMI Inc. has the experience and technical capabilities to provide the City of Greensboro quality CCTV services in a timely and cost-effective manner.

We look forward to discussing in detail any questions you and the selection committee may have regarding PMI's qualifications for this contract.

Sincerely,

Alex Leitz, PACP, MACP, LACP, Director of Operations

[aleitz@precisionmeasurements.com](mailto:aleitz@precisionmeasurements.com)

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Virginia Beach, Virginia 23452



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## Firm's Description of Scope of Services

### Understanding the Required Services:

Having performed on multiple "on-call" contracts, PMI Inc. understands the nature of this type of work. As indicated below you will see that the PMI Inc. team's technical capabilities and qualifications allow us to provide to the City of Greensboro superior service for any and all tasks that may be requested through this contract.

PMI Inc.'s extensive experience includes CCTV inspections and cleaning, installing CIPP pipe in storm drains and sewers, as well as operating CCTV and Vactor trucks. PMI Inc. is capable of managing projects from complete comprehensive rehabilitation of entire piping systems to rehabilitation of lateral connections. PMI Inc.'s CCTV staff has performed more than five-million feet of CCTV services, more than two-million feet of pipe rehabilitation along with 2,500 laterals rehabilitated, and more than 700,000 vertical feet rehabbed in manholes. Additionally, our staff has construction supervising experience for commercial and residential projects, from initial site preparation through final warranty work for projects.

PMI Inc.'s staff has over 35 years of combined experience working in the CCTV profession and thousands of linear feet in manhole rehabilitation. PMI Inc. offers CCTV and cleaning services from laterals to main line, which includes lateral launch from main line to clean-out. PMI can also install Vac-A-Tee cleanout on laterals, if needed. PMI Inc. can offer full PACP & LACP inspections and visual inspections in order to locate large infiltration and inflow issues, as well as manhole inspections (MACP) and rehabilitation. Additionally, PMI Inc. is able to provide smoke testing and flow monitoring services with highly-trained staff touting over 1 million feet of smoke testing and flow monitoring experience.

PMI Inc. currently operates a total of 3 CCTV vehicles; 2 vehicles for work within the right-of-way and 1 vehicle for off-road/easement work. All of PMI Inc.'s CCTV trucks are equipped with a variety of cameras, R.S. Technical (RST) Services CCTV Pipeline Inspection System equipment, and 1,000 feet of cable. Through the utilization of POSM recording software, PMI Inc. can inspect pipes from 4" to 72". All of PMI Inc.'s operators are NASSCO certified and are supported by an extremely capable support staff. Selected members are also trained and certified in VDOT Flagger Safety, Hazardous Waste Operations and Emergency Response (HAZWOPER), OSHA Confined Space Certified, Federal Emergency Management Agency (FEMA) Inspectors as well as being CSX/NS Certified to perform services within railroad rights-of-way.

PMI Inc's use of the latest CCTV supplies and equipment, in addition to our extensive background in CCTV services, provides exponential value to our team, allowing us to provide the best practice approaches to the City of Greensboro in an effort to enhance efficiency and effectiveness.

All projects will be performed under the direct supervision of our NASSCO Certified CCTV Manager, Steve Murray, and will be completed within an agreed upon schedule and fee negotiated for each individual work order.

With our strong field presence, multiple layers of office support and attention to detail, PMI Inc. has maintained the ability to be responsive to immediate requests and perform task orders ranging from small to larger scale in nature while maintaining cost effectiveness.



### Project Approach:

#### QUALITY ASSURANCE / QUALITY CONTROL:

Client satisfaction is PMI Inc.'s number one goal and is demonstrated through our Quality Assurance / Quality Control Customer Service Approach, which requires a thorough understanding of the client's expectations. Currently holding a number of on-call contracts, PMI Inc. has a vast knowledge of, and extensive experience working on, this exact type of contract and the expectations that come with performing on them.

Quality Assurance is a continuous process that begins at the initial request from the City of Greensboro for CCTV services and involves establishing a well-defined work plan, the implementation of budget controls, and a communication mechanism between PMI Inc., the





## Cleaning & Video Inspection of Gravity Sewer Lines

City of Greensboro, team members, and regulatory reviewers at consistent intervals throughout the project. PMI Inc. strives to take a "proactive approach" to quality assurance and customer service by establishing expectations relating to scope, limits, and delivery schedule, at the initial scoping meeting. PMI Inc.'s Quality Control procedure is utilized to ensure that the quality requirements are satisfied through the use of standards, checklists, field-checks, peer reviews and oversight by a dedicated project reviewer. PMI Inc. is continuously improving QA/QC methods and procedures in order to reduce any and all challenges that may be encountered during a project.

Quality Assurance is performed by all involved personnel throughout the lifecycle of the project. PMI Inc. will perform preliminary closed-circuit television ("CCTV") video inspections of existing sanitary sewer systems, which includes the preliminary assessment of the overall condition of piping systems. This process is performed by lowering the camera into the pipe and utilizing PSOM Software to record, allowing PMI Inc. to mark the manhole, then the water level. The camera is then driven to the thick transition in the cable, which is typically the 6' mark in the pipe, allowing the footage counter to work correctly. The process is then continued down the pipe at a speed of less than 30-feet-per-minute, allowing CCTV staff to mark all taps and offsets, as well as any defects including, but not limited to cracks, holes, breaks, etc.

Once the preliminary inspection is complete, the raw data is analyzed to ensure its integrity. PMI Inc. employs standard CCTV techniques to check the recorded information for comprehensiveness and accuracy and makes any adjustments deemed necessary. Once the data is verified, it is further processed.

PMI Inc. will thoroughly clean sanitary sewer piping systems and structures scheduled to receive rehabilitation of all internal debris; this may include the removal of corrosion, debris, detritus, solids, roots, and/or other deposits. PMI Inc. will be responsible for furnishing all labor, materials, tools, equipment, supervision, transportation and any incidentals necessary to perform point repairs on sanitary sewer pipes, laterals, and manholes.

PMI Inc.'s Vactor Trucks hold 1,500 gallons of fresh water and contain either a 12-yard or 15-yard debris body. These trucks contain 500 to 800 feet of 1-inch high-pressure hose as well as 300 feet of ½ inch hose. Our trucks run at 80 gallons a minute at 2,500 PSI in the 1-inch hose and 19 gallons a minute at 3,000 PSI in the ½-inch hose. The hoses include nozzles which allow our staff to clean pipe from 4-inches to 72-inches without making entry. No mechanical cutters are ever used in pipes until they have been viewed through our CCTV cameras to verify that there are no gas or electric lines in the pipe.

PMI Inc.'s pipe cleaning process begins with our crews opening the manhole and verifying they are at the downstream end of the pipe. The use of the 1-inch hose or the ½-inch hose will be dependent upon the need for light or heavy cleaning. The hose is unreeled and placed in the selected pipe; water is then turned on to the lowest pressure, allowing the nozzle to get to the upstream manhole. The hose is then reeled back at a speed fast enough to return to the downstream manhole while leaving some water remaining. At this point, suction tubes are installed and suction begins once the water starts to return and continues until all debris is cleared and the hose can be retrieved. This process is repeated, as necessary, until the pipe is clean.



PMI Inc. will open all existing active lateral connections covered up during cured-in-place pipe rehabilitation services and perform post-construction/rehabilitation CCTV video inspections, or other inspection methods, that may be requested by the City. PMI Inc. will provide a post construction/rehabilitation CCTV video inspection report, along with a written field report noting pipe size, location, lateral openings, and overall integrity of the rehabilitated piping system. PMI Inc. will ensure that all equipment and materials utilized for each task comply with all applicable codes, industry standards, and manufacturers' recommendations.

### COMMUNICATION & PROJECT OVERSIGHT:

PMI Inc.'s primary focus on every project is providing a quality product in a timely manner and at the agreed upon budget. We believe this begins with establishing an open line of communication between the CCTV Project Manager and our client, as well as a clear





### Cleaning & Video Inspection of Gravity Sewer Lines

understanding of the scope of work and deadlines from the beginning of the project. Steve Murray, PACP, MACP, LACP, will serve as CCTV Project Manager for this contract and keep the City of Greensboro abreast of all progress from the beginning to end of every project. PMI Inc. will establish a routine of daily or weekly communications with the City of Greensboro staff to discuss the status of any ongoing or proposed projects, depending on the complexity of the project and the requests of the agency project manager. However, these project updates can be given as often or as seldom as requested, at the request of the City of Greensboro. It is the responsibility of the assigned CCTV Project Manager to track and monitor the progress of all tasks and to ensure they are completed by the proposed deadline.

Internal communication is an integral part of PMI Inc.'s philosophy regarding project oversight and administration. In an effort to manage and forecast future work, PMI Inc. utilizes a variety of methodologies; one of which includes conducting a monthly, company-wide Project Manager's meeting, during which all managers discuss current workload and express their upcoming proposals and their expectations for NTP. On a weekly basis, all Office Manager's complete a workload projection which identifies active projects and their associated completion(s) as well as proposals with their projected NTP. This is all tracked on a weekly basis to determine as early as possible if the future workload is steady with current staff or if work sharing or hiring is needed in the near future.

Typically, fast paced turnaround is a requirement on projects associated with annual services contracts. PMI Inc.'s vast experience in providing CCTV services in conjunction with our integration of state-of-the-art "cutting edge" technologies sets us as a front runner in our profession. The following flow chart is a condensed version of PMI Inc.'s typical project methodology in regards to performing CCTV services.



The PMI Inc. Team's project organization is devoted to addressing the City of Greensboro's specific needs as well as offering a staff with directly applicable technical capabilities and specialized expertise that covers the spectrum of any CCTV services described in this RFP; allowing us to complete any work assigned from this contract without the use of any subconsultants.

## Section 2



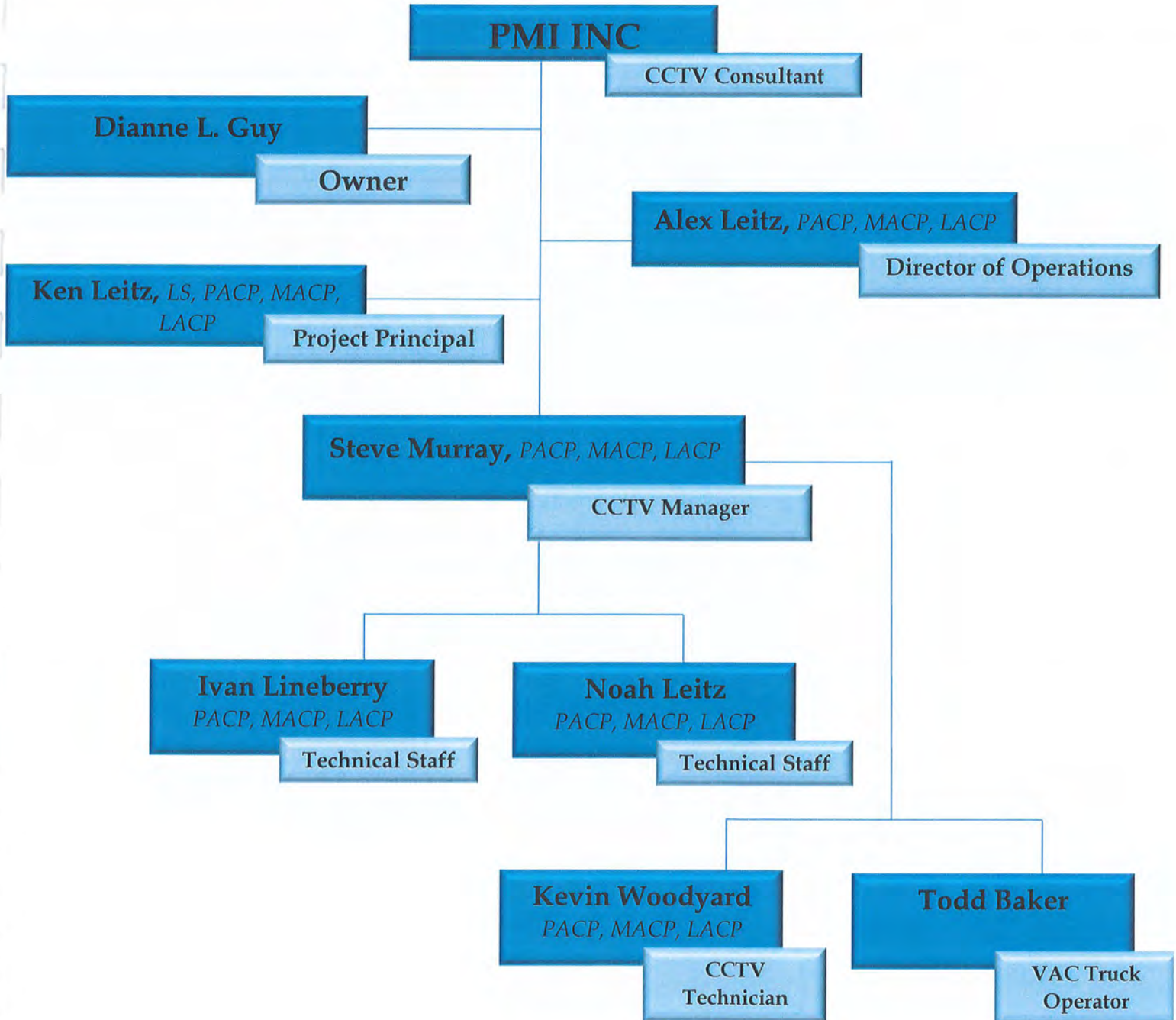


## Firm's Experience and Capabilities

### Key Personnel:

PMI Inc's CCTV staff has over 35 years of combined experience in all phases of sewer, storm water evaluation, and rehabilitation, as well as thousands of linear feet in manhole rehabilitation. With this experience, PMI Inc. is able to provide unbiased evaluations to its client. All of our staff are up-to-date on all current rehabilitation processes and can offer our clients the most effective rehabilitation options, both in cost and performance.

### STAFFING CHART:







**KEY PERSONNEL DETAILS:**

**Ken Leitz, LS, PACP, MACP, LACP**

**Project Assignment:** CCTV Project Principal  
**Years' Experience:** 35  
**Education:** Old Dominion University / 1987  
**Registration:** VA 1994 2026; KY 1998 3427; NC 1998 L-3987; FL 1999 5726; WV 2000 2017; TN 2001 2235; GA 2004 28444-S; AL 2007 2989; PA 2015 SE075501  
**Licenses:** NASSCO LACP, MACP, and PACP Certified  
**Training:** VDOT Flagger, OSHA Confined Space Certified, CSX Certified

**Kenneth Leitz, LS, PACP, LACP, MACP** will serve as the **CCTV Project Principal**. Mr. Leitz has over 36 years of experience in the land surveying and construction fields. His experience includes CCTV oversight, geodetic surveys, boundary surveys, route surveys, topographic surveys, and construction surveys. During his years of experience, Mr. Leitz has been involved with several high-profile CCTV projects, which required extensive attention to detail as well as quality assurance and quality control. His professional affiliations include the Virginia Association of Surveyors, The American Association of Geodetic Surveyors, The American Society of Photogrammetry and Remote Sensing, and The National Society of Professional Surveyors. Mr. Leitz's day-to-day responsibilities include CCTV management, office management, project management, client consultation, project estimation, project review and QA/QC.

**Alex Leitz, PACP, MACP, LACP**

**Project Assignment:** Director of Operations  
**Years' Experience:** 5  
**Education:** BBA, Radford University, 2014  
**Licenses:** NASSCO LACP, MACP, and PACP Certified

Ms. Alexandra Leitz serves as **Operations Director**. Ms. Leitz earned her BBA, with a focus in Management, from Radford University and is responsible for handling PMI's Operations. She supervises all operational duties including; contract administration, accounts receivable, marketing efforts, project proposals, and human resources. While serving in this management position, Ms. Leitz has gained imperative experience managing multiple large contracts including those for VDOT and SHA. Her involvement in these processes insures that proper resources are allocated to facilitate the successful completion of all projects.

**Steve Murray, PACP, MACP, LACP**

**Project Assignment:** CCTV Project Manager  
**Years' Experience:** 20  
**Education:** University of Arizona, 2005 / University of Maryland, 2006  
**Licenses:** NASSCO LACP, MACP, and PACP Certified; VA Class A Contractor (HH & RBC)  
**Training:** VDOT Traffic Control Certified; Intermediate Traffic Control; Confined Space Supervisor; Hurst High Pressure Boiler Operator; OSHA 10; CAD Systems

Mr. Murray will serve as the **CCTV Project Manager**. Mr. Murray has 20 years of experience, with over 2 million verifiable linear feet of work, in the field of CCTV services. His experience includes CCTV inspections and cleaning, installing CIPP pipe in storm drains and sewers, and operating CCTV and Vector trucks. During his years of experience, Mr. Murray has been involved with managing projects from a complete comprehensive rehab of entire piping system to rehabs of lateral connections. In addition, Mr. Murray has experience as a construction supervisor for commercial and residential projects from site preparation through final warranty work for projects. Mr. Murray's certifications include LACP, MACP, and PACP, VDOT traffic control, OSHA 10, Intermediate traffic control, Confined Space Supervisor, Hurst High Pressure boiler operator certification. Mr. Murray's day-to-day responsibilities include CCTV supervision, CCTV project management, client consultation, project estimation, project review and QA/QC. With Mr. Murray's extensive background in complete rehabilitation of piping projects, including lining, his understanding of what is expected in cleaning and CCTV is unparalleled.





**Kevin Woodyard, PACP, LACP, MACP**

**Project Assignment:** CCTV Technician

**Years' Experience:** 5

**Education:** PD Pruden Vocational / 1985

**Licenses:** NASSCO LACP, MACP, and PACP Certified

**Training:** VDOT traffic control, Intermediate traffic control, and confined space entry certified.

Mr. Woodyard will serve as a **CCTV Technician**. Mr. Woodyard has 5 years of experience in the field of CCTV work. His experience includes CCTV inspections and cleaning, installing CIPP pipe in storm drains and sewers, and operating CCTV and Vactor trucks. He is responsible for operating and maintaining surveillance and control center equipment, as well as watching both live and recorded video surveillance footage. He works in conjunction with, and at times operates, high pressure jet rodding-vacuum pipe cleaning equipment. He also directs and oversees the work of an assigned crew as needed for specific projects. Mr. Woodyard is a NASSCO Certified LACP, MACP, and PACP. Additional certifications include VDOT traffic control, Intermediate traffic control, OSHA 10, and confined space entry. Mr. Woodyard upholds a high level of meticulousness, professionalism, care, and integrity on all projects he works on.

**Todd Baker**

**Project Assignment:** Vac Truck Operator

**Years' Experience:** 10

**Training:** VDOT traffic control, Intermediate traffic control, Hurst High Pressure Boiler Operator, Basic First Aid, CSX/NS and confined space entry certified.

Mr. Baker will serve as a **VAC Truck Operator** and has 10 years of experience working in the CCTV profession. Mr. Baker is responsible for utilizing our wash truck to clean sanitary sewer and storm drain systems, as well as hydro-excavate; through his years of experience, he has gained a strong knowledge in the operation of equipment controls to obtain optimal results. Mr. Baker performs daily inspections on all equipment and reports any defects to the CCTV Project Manager. He also assists in performing traffic control through proper cone and sign set-up to protect equipment and operators on project sites. Mr. Baker is VDOT traffic control, Intermediate traffic control, OSHA 10, and confined space entry certified. Always methodical and proficient in any project he works on, Mr. Bakers is an invaluable member of the team.

**Firm's Experience:**

As previously mentioned, PMI Inc.'s CCTV staff has a combined total of over 35 years of experience. The following is a brief list of projects that have been performed out of **annual on-call contracts**, either as a prime or subconsultant.

**CCTV On-Call Inspection of Cross-County Gravity Sanitary Sewer Pipes  
James City County, Virginia**

*James City County / James Canning; 757.259.4108*

2018-2024 \$1,00,000.00

PMI is the CCTV consultant for the above-referenced project and is performing all CCTV services for any and all tasks that may be requested through this contract.

**CCTV On-Call Inspection of Cross-County Gravity Sanitary Sewer Pipes  
Task Order 1 – CCTV John Tyler Highway Off ROW  
James City County, Virginia**

*James City County / James Canning; 757.259.4108*

2018 \$10,968.74

PMI performed CCTV services of approximately 8,382 linear feet of John Tyler Highway as a task order out of the CCTV On-Call Inspection of Cross-County Gravity Sewer Pipes Contract.

**CCTV On-Call Inspection of Cross-County Gravity Sanitary Sewer Pipes  
Task Order 2 – CCTV John Tyler Highway Off ROW  
James City County, Virginia**

*James City County / James Canning; 757.259.4108*

2018 \$21,681.03

PMI performed CCTV services of approximately 18,548.5 linear feet of John Tyler Highway as a task order out of the CCTV On-Call Inspection of Cross-County Gravity Sewer Pipes Contract.





**CCTV 18<sup>th</sup> Street Sewer Line  
Newport News, Virginia**

*City of Newport News/ Tenille Wade; 757.926.1000*  
2017 \$4,600

PMI is currently the on-call survey consultant for the General Architectural & Engineering Services contract for Newport News, Virginia. As a task order out of that on-call, PMI Inc. performed CCTV services for the 18<sup>th</sup> Street Sanitary Sewer Line project, which included the inspection of approximately 2,500 linear feet of sanitary sewer pipeline.

**CCTV Storm Drain Project at Arlington National Cemetery  
Arlington, Virginia**

*USACE Norfolk District / Norman Malbon; 757.201.7323*  
2015 \$172,209.88

PMI is currently the on-call survey consultant for the IDIQ Contract for Land Surveying Architect Engineering Services for US Army Corps of Engineers-Norfolk District. As a task order out of that on-call, PMI performed CCTV services which were divided into multiple phases and based on maps provided by USACE highlighting the sanitary sewer to be inspected. PMI performed inspection of approximately 67,800 linear feet of sanitary sewer pipeline with various diameters.

**MDTA CCTV Settlement Evaluation at B-X672001  
Baltimore, Maryland**

*Hardesty & Hanover, Whiteman, Requardt, & Associates JV / Jeffrey Lomax, PE; 443.224.1567*  
2018 \$3,520.50

PMI is the survey subconsultant for the MDTA Physical On-Site Inspection of MDTA Facilities Annual On-Call contract. As a task out of that on-call, a video inspection was performed by a certified NASSCO Pipeline Assessment and Certification Program trained operator.

**Culvert Pipe Inspection of the York Flood Risk Management Project  
York, Pennsylvania**

*USACE Baltimore District / Louis Mead; 410.962.3691*  
Ongoing \$90,212.45

PMI is currently the on-call survey consultant for the IDIQ Contract for Land Surveying Architect Engineering Services for US Army Corps of Engineers-Norfolk District. As a task out of this on-call, PMI performed the required services to complete the Cleaning and CCTV Inspection for the York Flood Risk Management Project, which consists of eight levees with four on each bank of Codorus Creek with corresponding flood reduction channels. PMI performed CCTV services of 94 pipes totally approximately 4,900 linear feet and included the removal of various impediments and blockages to ensure adequate assessment of the pipes.

**The following is a brief list of CCTV work performed as stand-alone projects:**

**CCTV Storm Sewer Cleaning & Inspection at Clemson University  
Clemson, South Carolina**

*Clemson University / Scott Banks; 864.656.3311*  
2018 \$39,000.00

PMI performed miscellaneous storm sewer pipe & structure cleaning and video inspection of approximately 6,600 linear feet at Clemson University Campus.

**CCTV Believers Church  
Suffolk, Virginia**

*CW Brinkley / Bob Semmel; 757.539.9111*  
2017 \$375.00

As a subconsultant, PMI performed CCTV services for the Believers Church project in Suffolk, Virginia. CCTV services included an inspection of approximately 37,265 linear feet of sanitary sewer pipeline various diameters.





**CCTV Tazewell Street at Dorset Avenue  
Portsmouth, Virginia**

*Woolpert / Travis Davis; 757.549.5348*  
2017 \$375.00

As a subconsultant, PMI performed a CCTV video of the sewer line and provided the report to assist the City in performing a conditions assessment of the observable sewer line and stub.

**Clean & CCTV Emergency Repair at Virginia Tech University  
Blacksburg, Virginia**

*Insituform / Stacey Dunn; 443.613.7814*  
2018 \$2,500.00

PMI Inc. performed an emergency CCTV inspection and cleaned 120 linear feet of sanitary sewer at Virginia Tech University.

**CCTV Roanoke Sanitary Sewer Miscellaneous Rehab  
Roanoke, Virginia**

*IPR / Metin Atamer; 281.292.6758*  
Ongoing \$9,223.97

PMI Inc. performed CCTV services for the Roanoke Sanitary Sewer Miscellaneous Rehab project, which included approximately 3,904 linear feet of sanitary sewer line.

**CCTV Crystal Spring & Westside Boulevard Sanitary Sewer Rehabilitation  
Roanoke, Virginia**

*Insituform / Nick Rosengarten; 443.462.6592*  
Ongoing 161,693.61

PMI Inc. performed CCTV services for the Crystal Spring & Westside Boulevard Sanitary Sewer Rehabilitation project, which included preliminary CCTV investigation of approximately 6,578 linear feet of sanitary sewer line and a preconstruction lateral investigation.

**Ward's Corner Area 150 Gravity Sewer Replacement, Phase 5  
Norfolk, Virginia**

*Tidewater Utilities / Marci Blackwood; 757.935.5899*  
2018 \$7,821.00

PMI Inc. performed CCTV services for Phase 5 of the Ward's Corner Area 150 Gravity Sewer Replacement project. Project site consisted of 2,380 linear feet of 8" SDR 26 Sanitary Sewer Gravity Main; 890 linear feet of 8' C900 PVC Sanitary Sewer Gravity Main; 1,690 PVC service lateral (public); 2,150 linear feet of PVC service lateral (Private).

**CCTV East Ocean View PS 88 Water/Sewer Phase 5  
Norfolk, Virginia**

*Tidewater Utilities / Marci Blackwood; 757.935.5899*  
2018 \$3,872.00

PMI Inc. performed CCTV services for Phase 5 of the East Ocean View PS 88 Water/Sewer project. Project site consisted of 1,985 linear feet of 8" SDR 26 Sanitary Sewer Gravity Main; 890 linear feet of 4" SDR 26 Service Lateral (Public); 550 linear feet of 6" SDR 26 Service Lateral (Public); 60 linear feet of 4" SDR 26 Service Lateral (Private); 35 linear feet of 6" SDR-26 Service Lateral (Private)





**REFERENCES:**

**Name:** James Canning  
**Title:** Civil Engineer III  
**Agency:** James City County  
**Department:** Engineering  
**Phone:** 757.253.6753  
PMI currently holds CCTV On-Call Inspection of Cross-County Gravity Sewer Pipes Contract.



**Name:** Gene Weaver  
**Title:** Construction Manager  
**Agency:** City of Suffolk  
**Department:** Public Works  
**Phone:** 757.514.7078  
PMI currently performs CCTV services on an as-needed basis for the City of Suffolk.



**Name:** Travis Davis  
**Title:** Senior Water Resource Engineer  
**Company:** Arcadis  
**Phone:** 757.419.39970  
PMI currently performs CCTV services on various projects, on an as-needed basis for Arcadis.



**Equipment:**

PMI Inc. currently operates a total of 3 CCTV vehicles; 2 vehicles for work within the right-of-way and 1 vehicle for off-road/easement work. All of PMI Inc.'s CCTV trucks are equipped with a variety of cameras, R.S. Technical (RST) Services CCTV Pipeline Inspection System equipment, and 1,000 feet of cable. Through the utilization of POSM recording software, PMI Inc. can inspect pipes from 4" to 72". All of PMI Inc.'s operators are NASSCO certified and are supported by an extremely capable support staff. The following is a list of specific equipment that PMI Inc. utilizes for CCTV services.

Equipment Type	Quantity
<b>Easement / Right-of-Way</b>	<b>7</b>
Mobile Mainline Inspection System (CUBE)	1
2016 Kawasaki UTV	1
2005 F250 with Enclosed Trailer	1
Bobcat Reel	1
2005 E350 (TV1)	1
2002 E450 (TV2)	1
2005 Vactor 2100	1
<b>Camera Equipment</b>	<b>4</b>
Vivax Metrotech vCam-5 Push Camera	2
RCX90 Laser Profiling Camera	1
Rovver X SAT's Lateral Launch Camera	1
<b>Tractors / Crawlers</b>	<b>5</b>
RST Pipe Tractor	4
Envirosight Lateral Launch Rovver X Tractor	1
<b>Pin Finder / Metal Detectors</b>	<b>19</b>
CST / Berger Magna-Trak Pin Finder	3
Schonstedt Magnetic Locator Pin Finder	12
Subsurface Instrument Magnetic Locator Pin Finder	4



**ADDITIONAL EQUIPMENT INFORMATION:**

# Portable Systems

## THE CUBE

This is the perfect pipeline inspection system for easements, off road manholes or any hard to get to situation.

This little workhorse of a system is ideal for easement work or those organizations who want the power of a full mainline system in a free-standing, highly mobile format.

Housed in quarter-inch powder coated, glare resistant aluminum, The CUBE has forklift access both front and rear along with four 2000 lb. rated lift/tie down hooks. The system has been configured to be highly water resistant from design of all the doors and panels all the way to the sealed rivets.

*Other outstanding features:*

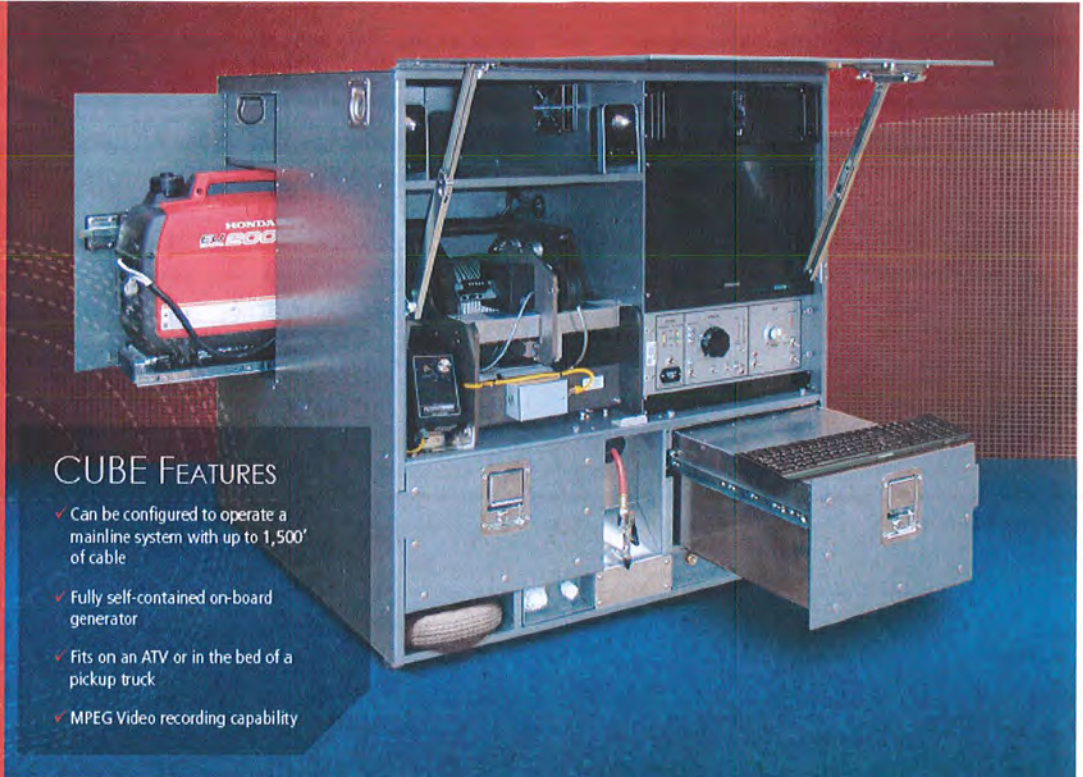
Rack mount or laptop data collection system

Two 500 lb. capacity storage drawers

Front access 9-gallon pressurized wash-down system

## CUBE FEATURES

- ✓ Can be configured to operate a mainline system with up to 1,500' of cable
- ✓ Fully self-contained on-board generator
- ✓ Fits on an ATV or in the bed of a pickup truck
- ✓ MPEG Video recording capability



### THE CUBE & 2016 KAWASAKI UTV

*\*Image taken from the RST brochure – the company in which we purchased the CUBE from. Our CUBE is currently loaded in the bed of a 2016 Kawasaki UTV. The Kawasaki is loaded in an enclosed trailer hooked up to a 2005 Ford F250. (Easement)*



# Installs

Let us build your inspection dream machine. We offer build-to-suit configurations to meet your budget, applications and ergonomic requirements.



HIGH CUBE  
STEP VAN  
CARGO VAN  
SPRINTER VAN  
TRANSIT VAN  
TRAILERS  
ATVs AND MORE

Choice of Gas or Diesel Engine  
Available on Most Makes and Models



## CCTV TRUCKS FORD 2005 E350 & 2002 E450

*\*Image taken from the RST brochure – in which we purchased our custom-built E350 CCTV Van from. This Van houses all of the necessary pipeline inspection equipment. The E450 houses the same equipment and will be used for back-up, as needed. All CCTV equipment within these TV vehicles can be rented from our dealer if the need for back-up equipment is required. (Right-of-way)*





**Schedule:**

PMI Inc. currently operates 3 CCTV vehicles and is continuing to aggressively grow. Currently, PMI Inc. has the capacity to perform approximately \$1,000,000.00 worth of CCTV / Cleaning annually. PMI Inc. has approximately 6 months' worth of availability, and a standard response time of 48 hours.

**Current Projects:**

Currently, PMI Inc is utilizing 60% of its total capacity. PMI Inc. will be able to respond immediately to any requests for the City of Greensboro and will rank these projects as the highest priority. As PMI Inc. does not pursue private development type projects, we will not be placed in a position to have to allocate all of our resources to meet unexpected deadlines from developers. Also, PMI Inc. will not be placed in a position of having to sit on "both sides of the table". PMI Inc. will only represent the City of Greensboro's interest.

PMI Inc. looks forward to being given the opportunity to fulfill the City of Greensboro's CCTV needs. The following is our current workload.

PMI Inc. Current Workload		
Project	Location	% Complete
CCTV Crystal Spring & Westside Blvd Sanitary Sewer Rehabilitation	Roanoke, VA	10%
Culvert Pipe Inspection of the York Flood Risk Management Project	York, PA	65%
CCTV & Clean NAS Patuxent River	Frederick, MD	5%
CCTV Roanoke Sanitary Sewer Miscellaneous Rehab	Roanoke, VA	5%





# Cost of Services

## RFP FOR OTHER SERVICES CLEANING AND CCTV ASSESSMENT

ITEM DESCRIPTION	QUANTITY	U/M	UNIT COST	TOTAL COST
HYDRAULICALLY CLEAN AND CCTV 6 THRU 8-INCH SEWER	30,000.00	LF	2.05	61,500.00
HYDRAULICALLY CLEAN AND CCTV 6 THRU 8-INCH SEWER (HIGH TRAFFIC)	3,000.00	LF	3.25	9,750.00
HEAVY CLEANING 6-8 INCH	10,000.00	LF	4.00	40,000.00
HYDRAULICALLY CLEAN AND CCTV 10 THRU 12-INCH	20,000.00	LF	2.05	41,000.00
HYDRAULICALLY CLEAN AND CCTV 10 THRU 12-INCH (HIGH TRAFFIC)	1,000.00	LF	3.25	3,250.00
HEAVY CLEANING 10 THRU 12-INCH SEWER	5,000.00	LF	4.95	23,750.00
HYDRAULICALLY CLEAN AND CCTV 15 THRU 18-INCH	5,000.00	LF	2.35	11,750.00
HYDRAULICALLY CLEAN AND CCTV 15 THRU 18-INCH SEWER (HIGH TRAFFIC)	250.00	LF	4.00	1,000.00
HEAVY CLEANING 15 THRU 18-INCH SEWER	2,000.00	LF	5.00	10,000.00
HYDRAULICALLY CLEAN AND CCTV 20 THRU 24-INCH	1,500.00	LF	3.15	4,725.00
HYDRAULICALLY CLEAN AND CCTV 20 THRU 24-INCH SEWER (HIGH TRAFFIC)	300.00	LF	4.50	1,350.00
HEAVY CLEANING 20 THRU 24-INCH SEWER	500.00	LF	7.00	3,500.00
CCTV 30 THRU 36-INCH SEWER	4,000.00	LF	3.75	15,000.00
CCTV 48-INCH SEWER	20,000.00	LF	3.75	75,000.00
			<b>TOTAL</b>	<b>313,325.00</b>

1. QUANTITIES ARE APPROXIMATE.
2. LIGHT CLEANING AS REQUIRED TO MEET PACP STANDARDS IS INCLUSIVE OF THE HYDRAULICALLY CLEAN AND CCTV LINE ITEMS
3. IF MULTIPLE PASSAGES OF THE JETTER OR RODDER ARE REQUIRED FOR CAMERA PASSAGE OR THERE IS SIGNIFICANT DEBRIS IN THE LINE, THIS SHALL JUSTIFY HEAVY CLEANING
4. THE MAJORITY OF THE WORK (IF NOT ALL) WILL BE IN ROAD RIGHT-OF WAYS OR EASEMENTS





## **Minority/Woman Business Enterprise (M/WBE) Policy**

As previously mentioned, as a WBE, PMI is currently certified by the Virginia Department of Transportation (VDOT), Maryland Department of Transportation (MDOT), District Department of Transportation (DDOT), and North Carolina Department of Transportation (NCDOT)\* as a Disadvantaged Business Enterprise (DBE). As a DBE, PMI is capable of exceeding the Annual Aspirational Goal for participation in City Goods & Other Services contracts and is qualified to perform 100% of the work out of this contract. Should any task orders require assistance from subconsultants in order to meet scheduling requirements, PMI will strive to coordinate with other M/WBE businesses first and foremost. Additionally, PMI will provide equal opportunity for M/WBE's to participate in significant material supplier opportunities, should they be needed.

*\*Recently applied, status pending*



Statement of Intent to Perform Work without Subcontracting

We, Precision Measurements, Inc. dba PMI, Inc., hereby certify that it is our intent to perform 100% of the work required for the Cleaning and Video Inspection of Gravity Sewer Lines Contract. (Name of Project & Contract Number)

In making this certification, the Bidder, pursuant to Item VIII, Section B, states the following:

- 1. That it is a normal business practice of the Bidder to perform all elements of this type of contract with its own work forces without use of subcontractors.
2. That if it should become necessary to subcontract some portion of the work at a later date, the Bidder will notify the City of Greensboro and institute good faith efforts to comply with all requirements of the M/WBE program in providing equal opportunities to M/WBE firms to subcontract the work.
3. That the Bidder will provide equal opportunity for M/WBEs to participate in significant material supplier opportunities available under the prime contract and to document good faith efforts as required herein.

Accompanying this certification the undersigned shall provide conclusive documentation which serves to verify that it is, and has been, a normal business practice for the indicated firm to perform all elements of this type of contract with its own workforce and without the use of subcontractors. The documentation must demonstrate that the firm has sufficient employees, equipment, and bonding to perform the entire contract without the use of subcontractors and that it has previously performed contracts of similar scope and comparable cost without the use of subcontractors.

Signature and title of authorized official of the company and the date must be properly executed or this document will be deemed nonresponsive.

The undersigned hereby certifies that he or she has read the terms of this certification and is authorized to bind the Bidder to the commitment herein set forth. Signature and title of authorized official of the company and the date must be properly executed or this document will be deemed nonresponsive.

Notary Public section containing a circular seal for Kelli Lynn Stamm, Notary Public, Reg. #7082646, My Commission Expires 09/30/2019, Commonwealth of Virginia. Includes fields for Date (10/01/2018), Name of Authorized Officer (Alex Leitz), Signature (Alex Leitz), Title (Director of Operations), State of (Virginia), County of (Virginia Beach), Notary Public (Kelli Lynn Stamm), and My commission expires (9/30/2019).



