



Capabilities Statement

SMC is a DBE/WBE certified industry leader that protects and restores watersheds through practical design, construction, and maintenance of stormwater facilities and streams. Every project mitigates human impacts on natural systems.



Established in 2004, SMC provides engineering, surveying, inspection, construction, and maintenance for all aspects of stormwater, streams, and related infrastructure for public, private, and non-profit clients. We accomplish this through the combined efforts of dedicated technical and field staff who apply local knowledge to develop practical solutions.

With a wide breadth of skills housed within our company, SMC provides specialized water quality improvement services on a project specific basis. Clients range from government agencies, large and small general contractors, commercial property owners and managers, and home owners associations. Our primary markets focus on the Mid-Atlantic region - Maryland, Virginia, Washington DC, and Pennsylvania. SMC has direct experience utilizing a variety of contract mechanisms to accomplish project goals including design/build and design/bid/build contracts, and cooperative purchasing. We have developed strategic relationships with a variety of specialty subcontractors to fulfill project requirements outside of our specialties.

Surveys



- Topographic
- Construction stakeouts
- As-built certifications
- 3D aerial imagery

Construction



- Stream restoration
- Stormwater BMP retrofits/repairs
- Stormwater facility construction
- Wetland construction

Engineering



- Stormwater retrofits/repairs
- Stream restoration
- Floodplain modeling
- NPDES permitting

Maintenance



- Routine maintenance
- Non-routine maintenance
- Maintenance budgeting
- Municipal portfolios

Inspections



- Municipal regulatory
- Confined space entry
- Due diligence
- CCTV video inspections

Underground



- Comprehensive vac truck services
- Pipeline cleaning
- Underground stormwater facility maintenance
- Underground sand filter rehabilitation

We Protect and Restore Watersheds.

(410) 785-0875 | info@mdswm.com



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

SURVEYS

TOPOGRAPHIC SURVEYS

Topographic surveys provide information on the elevation and slope of the land, location of surface features, i.e. buildings and parking lots, and infrastructure or utilities such as manholes and inlets, water, and sewer. Stream banks, critical natural features and pond bottoms are also included even when heavily vegetated or underwater. SMC's surveyors know what matters and acquire information, even if underground, overgrown, or submerged in water.

PROPERTY BOUNDARY AND ALTA SURVEYS

There are times when it is important to know the limits of what land is owned or where property lines fall. Our surveyors have broad experience in boundary research, law, and collection of necessary data to correctly identify property lines whether as part of a stormwater or stream project or for an ALTA survey needed for a property acquisition. ALTA surveys can be combined with stormwater conditional assessments in the due diligence phase of a property transfer.

AS-BUILT AND FLOOD CERTIFICATIONS

Extensive as-built documentation is required for the construction of stormwater facilities and stream restoration projects. We combine stormwater and stream restoration engineering expertise with a specialized surveying focus to provide comprehensive construction documentation and as-built certifications. With floodplain engineers on staff, we also provide flood elevation certificates for flood insurance purposes.

DRONE SERVICES

Using state-of-the-art drone equipment, SMC creates video footage, aerial photography, and digital imagery for many reasons including envisioning and modeling improvements, documenting existing conditions, construction progress, and final close-out. Fully FAA licensed, our surveyors use the technology to perform overall site topography and digital modeling imagery in a fraction of the time and cost of traditional methods.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

ENGINEERING

SPECIALIZED ENGINEERING TALENT

SMC's professionals specialize in water resources engineering that applies a first-hand understanding of construction and maintenance to develop practical solutions. Our focus is on all engineering aspects of stormwater, channel and streams, and drainage infrastructure.

MAJOR REPAIRS, REMEDIATION & ASSESSMENT

Repairs to existing stormwater and drainage infrastructure may not be straightforward and can require engineering expertise to determine the most cost effective solution. This includes outfall channels and barrels, major cleanout and dredge efforts, gradual or sudden sinkholes, structural or subsurface issues, or flooding situations. We assess, design, permit, and can incorporate construction or assist with bidding processes.

RETROFIT DESIGN

Adding or altering existing infrastructure to improve performance or treat previously unmanaged runoff is often referred to as a retrofit. Reasons for retrofits include capturing water quality credits for fee reduction or other monetization, addressing new development activity on an existing site, improving drainage conditions, or compliance with regulatory requirements, such as on industrial sites. As existing infrastructure experts, we have experience determining the most cost effective retrofit options and provide full design and permitting implementation.

TECHNICAL ANALYSIS

Our engineering capabilities and reputation extends beyond assessment and design into a variety of highly technical fields. These include a host of services related to significant and high hazard dams including consulting/permitting, breach analysis, hazard determination, annual inspections, danger reach determination, and Emergency Action Plans. We are abreast of the latest techniques in floodplain analysis and are known for tackling challenging floodplain determination, impact mitigation, and permitting.

NATURAL CHANNEL DESIGN

We combine the latest understanding of natural river and stream design, geomorphic and engineering analysis with practical construction techniques to develop successful stream restoration designs. Having designed stable streams since 1995 in numerous states, our professionals implement designs that improve ecosystem uplift, encourage stability, resolve flooding issues, and facilitate upland improvements. We have comprehensive capabilities that include geomorphic and biological assessment, design and related analysis, construction oversight, and as-built documentation.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

INSPECTIONS

ANNUAL INSPECTIONS

Just like other infrastructure, awareness of the condition of your stormwater facility is the best way to know what maintenance or repairs are needed now and what to predict for the future. SMC has specialized in the inspection of stormwater for 20 years, delivering reports with concise, understandable language and clear photo documentation. All inspections are under the supervision of a Professional Engineer which can easily incorporate regulatory compliance.

DUE DILIGENCE AND CONDITIONAL ASSESSMENTS

Determining the condition of stormwater infrastructure is an important part of understanding the cost ramifications of a property purchase or establishing property management budgets. Even with hidden underground facilities, our inspectors can perform confined space entry or CCTV services to make sure you know about potentially hidden costs.

CONSTRUCTION CLOSEOUTS

The source of many problems with stormwater infrastructure can be traced back to construction, even if it had an as-built certification. It pays to have an inspection conducted before construction closeout or prior to assuming any maintenance responsibility. With knowledge of both design and maintenance, our inspection and survey teams have the skill set to identify circumstances that can lead to unexpected future costs. We also have full as-built certification capabilities.

PROBLEM ASSESSMENT

Once a complaint is filed or a problem identified, the next steps are to determine the cause of the problem and then what is needed for resolution. Applying our stormwater and drainage expertise with firsthand knowledge of engineering, construction, and maintenance, our professionals routinely assess and offer solutions to problems related to stormwater facilities and drainage infrastructure.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

CONSTRUCTION

NOTICE OF VIOLATION COMPLIANCE

A letter requiring repairs is never a welcomed sight. SMC has established relationships with most regulators that ease communication and prevent escalation. We work with our clients to make sure the County or City requirements are understood and addressed and then proceed with a solution. Our construction professionals are highly experienced at making repairs, regardless of how simple or complex, resulting in bringing our clients into compliance with regulations.

DESIGN/BUILD

Our in-house engineering and construction capabilities make implementing complex projects seamless throughout the process. This approach is often applied to major repairs or retrofit projects. Permitting is streamlined and efficiencies are increased with a single source handling all aspects of design and construction. Importantly, costs are reduced and communication is fluid.

STORMWATER RETROFITS

Stormwater retrofits are existing facilities that are upgraded to meet current water quality standards, or construction of new stormwater facilities to address previously untreated runoff. These projects occur to address restoration requirements or to support grant funded programs. Our construction professionals routinely work in highly constrained and challenging conditions often encountered with retrofits.

STREAM RESTORATION

Stabilizing streams using natural restoration techniques is another way to meet requirements for addressing impervious area treatment restoration requirements. This is a highly technical and unique construction discipline that is one of our specialties. Our engineers and surveyors also have significant stream restoration experience that ensures dependable and cost effective results.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

MAINTENANCE

PLANNING AHEAD FOR THE INEVITABLE

Managing property assets requires short-and long-term expenditures. As with any commercial activity, understanding and forecasting the cost of doing business is critical to sustainable success. When it comes to stormwater and drainage related assets, SMC can add reliability to your forecasts and consistency to your budgets.

COMPLIANCE SHOCK

Through various means, most municipalities have the authority to force maintenance of stormwater infrastructure regardless of current budgeting or funding. Complying with notices from regulatory authorities can come as an operational and financial shock to those who have responsibility for stormwater and drainage infrastructure. A reserve study helps inform the condition of the infrastructure and reduces surprise expenses mandated by regulatory authorities.

CAPITAL EXPENSE BUDGETING

Like any other property asset, stormwater infrastructure has a finite lifespan. Understanding the timeline of the repair or lifecycle replacement of various components and establishing reasonable capital budgets is an important aspect of successful property management. We combine the expertise of engineers, surveyors, construction estimators, and accounting professionals to reliably provide practical, holistic guidance.

GETTING RESULTS

Our stormwater management reserve studies are longterm, capital budget planning tools that include a hands-on physical assessment, accurate maintenance and construction cost estimating. Armed with this information, we perform a reserve fund financial analysis and develop an equitable funding plan to ensure adequate funds are available when stormwater infrastructure repairs are needed.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

UNDERGROUND

CLEANING UNDERGROUND STORMWATER BMPs

Underground stormwater Best Management Practices (BMPs) are facilities designed to trap sediment, trash, and oil, in specially designed underground structures. As these BMPs are out of sight, many property owners and managers are not aware that they even exist until they are notified by regulators or have flooding issues. SMC has dedicated crews and specialty equipment to inspect, clean, restore, and repair these BMPs. Our knowledge and experience ensures that underground stormwater infrastructure is maintained properly and cost effectively.

PIPE CLEANING / JETTING

Storm drain pipes, inlets, and manholes can become clogged with sediment and debris, causing flooding or poor drainage. Clearing these clogged structures can be difficult without the appropriate equipment and experienced professionals. We have a well-staffed fleet of vacuum trucks capable of high pressure jetting and debris removal. All material is removed from the project site and disposed of appropriately as opposed to downstream flushing. Experienced in this work, our personnel documents the process with photo-driven reports and has the knowledge to identify the cause of the issue.

CONFINED SPACE AND CCTV INSPECTIONS

Underground structure and pipe inspections are needed for as-built documentation, conditional assessments, or problem investigations and can be especially challenging and dangerous. Every day, our OSHA trained teams safely enter, inspect, and document underground structures and large pipes. For smaller pipes, we have specialized CCTV equipment with on-board software operated by certified professionals to investigate and document these systems. Professional Engineers are available to oversee the assessments and reporting, and all work adheres to industry standards such as NASSCO.

HYDRO-EXCAVATION

Our vacuum trucks also provide the capability to conduct hydro-excavation tasks for our clients. This process is a fast, accurate, and non-destructive method to excavate to, locate, and work around underground utilities with minimal disturbance. It can simplify working near dangerous or complicated utilities.



We Protect and Restore Watersheds.



Surveys



Engineering



Inspections

Stormwater Services



Construction



Maintenance



Underground

WOMEN-OWNED BUSINESS

SMC adds value to any team as a DBE/WBE certified firm in the States of Maryland, Pennsylvania, Virginia, and Delaware, and Washington DC. We are also certified with various counties as well as the WBENC/WOSB.

WBE/DBE INFORMATION

SMC offers our teaming partners a reliable option with diverse technical capabilities and understands the rigors and importance of the prime/subcontractor relationship. Our extensive experience in both the engineering and construction fields offers an attractive teaming opportunity to fulfill DBE/WBE participation requirements determined by issued RFPs all while covering many phases of a project's timeline. Utilizing our specialized experience and commitment to improving the environment every day, SMC provides our clients with customized solutions to our watershed's water quality issues.



Maryland Department of Transportation

Certification No. 12-334



Pennsylvania Department of Transportation

Certification No. 7822



City of Baltimore

Certification No. 12-358330



City of Philadelphia

Certification No. 108



Prince George's County

Certification No. 18-13467



District of Columbia

Certification No. 2226



Charles County

Certification No. 14-31



Virginia SWaM / DBE

Certification No. 701301



WBENC / WOSB

Certification No. 2005122079 / WOSB200535



State of Delaware

Certification No. DE22023988

NAICS CODES

- 237110** - Sewer Main, Pipe and Connection, Storm Sewer Construction
- 237990** - Dam Construction, Other Heavy/Civil Engineering Construction
- 561730** - Landscape Installation Services, Landscape (except planning)
- 541370** - Surveying and Mapping (except Geophysical) Services

- 541990** - Pipeline Inspection (visual)
- 541330** - Civil Engineering
- 562998** - Storm Basin Cleanout, Misc. Waste Mgmt.



We Protect and Restore Watersheds.