

SCOPE OF SERVICES

Town of Smithfield Spring Branch Community Restoration and Resiliency Project

The services performed as part of this Scope of Service include providing technical consulting support to the Town of Smithfield (Town) for developing a comprehensive restoration and resiliency plan for the Spring Branch corridor. The Spring Branch watershed is 1.53 sq. miles and includes nearly all of Market Street in the downtown area. The watershed extends north to North Street, south to Brogden Road, and is bordered to the southeast by Interstate 95. Spring Branch Watershed also includes Johnston County Community College. The intent of this project will be to create a clear concise, and comprehensive plan that will outline projects within the watershed to increase the Town's stormwater resiliency within the Spring Branch watershed. The identified projects will include a conceptual plan and estimate generated, identify potential grant funding sources and cycles, list potential problems and solutions, and estimate completion dates of each individual project, giving the Town a tentative timeline for full implementation of the plan. These projects will be prioritized based on downstream effects, estimated costs, grant funding/matching funds availability, and stakeholder input.

In general, McCormick Taylor (MT) together with our subconsultants (project team), will provide the following scope of services:

- Complete an existing condition analysis.
- Identify and conduct stakeholder meetings.
- Complete public outreach
- Identify and prioritize resiliency and greenway projects.
- Development conceptual designs and preliminary estimates
- Create HEC-RAS hydraulic models for the watershed.
- Identify grant funding options and grant cycles for identified projects.
- Create a timeline for full plan implementation.
- Provide final restoration and resiliency plan.
- Provide project percentage completes and updates bi-weekly.

The general location of the project is shown in Figure 1 (attached).

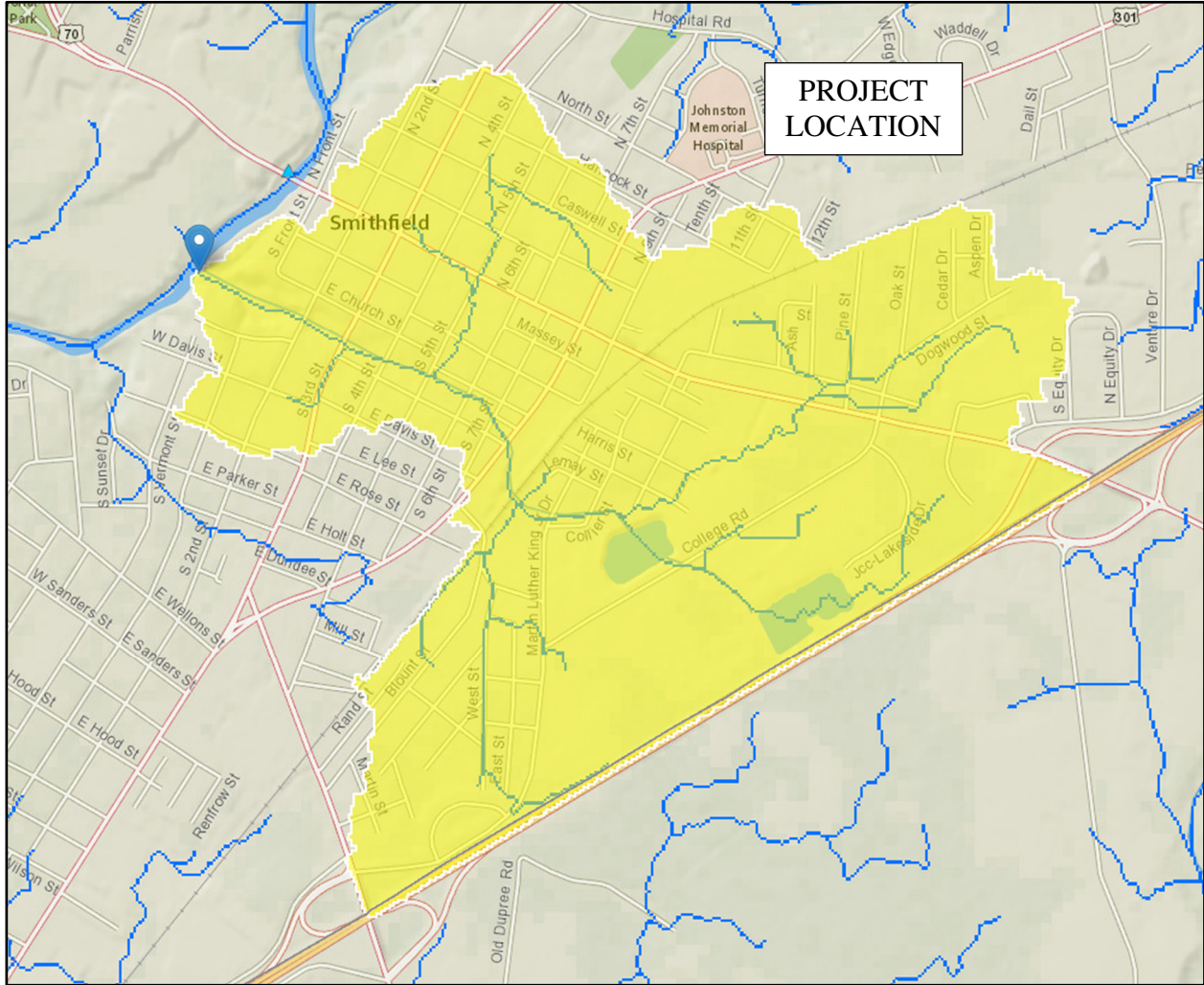


Figure 1. Project location and approximate drainage area highlighted in yellow.

TASK 1 – PROJECT MANAGEMENT

1.1 General Project Administration

- MT will manage the efforts of its project team members and sub-consultants by assigning manpower, delegate responsibilities, review work progress, monitor budget and schedule, and direct the progress of the work. As part of project administration, MT will:
 - Provide monthly invoicing and schedule updates.
 - Plan and perform project quality control and quality assurance.
 - Provide monthly progress reports.
 - MT will invoice monthly and include amounts invoiced by sub-consultants.

1.2 Coordination Meetings

- Project team will meet to discuss and be guided by the Town’s long-term goals for the Spring Branch corridor.
 - Kickoff meeting
- Monthly progress meetings with Town’s Planning Director for duration of project. This is assumed to be seven (7) months for seven (7) meetings and will be a virtual meeting (conference call or video teleconference).

TASK 2 – EXISTING CONDITIONS ANALYSIS

2.1 Desktop Analysis

- The project team will coordinate with the Town and investigate other data sources to acquire all available data for the Spring Branch watershed to establish baseline data for the analysis.
 - Evaluate existing studies and plans within the watershed, which include, but not be limited to:
 - Smithfield Town Plan (2020)
 - Stormwater Action Plan (2013)
 - Withers and Ravenel Study data
 - Woolpert evaluation study data
 - Johnston County Comprehensive Plan (2009)
 - Johnston County GIS
 - NC OneMap
 - FEMA floodway information
 - Work with the Town to gather all available data the Town has from previous work done for the Town in the watershed.

2.2 Field Data Gathering and Analysis

- The project team will review information gathered through desktop analysis and determine other information that will be needed to complete resiliency plan. An existing visual reconnaissance of the existing stormwater infrastructure will be performed to identify existing stormwater infrastructure that was not known or included in available data obtained in task 2.1. The reconnaissance will occur on publicly owned property or on private property with prior approval from the landowner. Other tasks that will occur during the field walk will be:
 - Collecting stream geomorphic measurements. Cross-sections will be taken at multiple locations along Spring Branch to accurately define the channel geomorphic features.
 - Additional survey data throughout watershed (as needed)

2.3 Traffic Engineering Services

- To be completed by Ramey Kemp.

TASK 3 – PROJECT IDENTIFICATION AND PRIORITIZATION

3.1 Project Identification

- The project team will review the results of the baseline hydraulic modeling and create a list of problem areas that will benefit the most from resiliency projects.
- The project team will review desktop data and will conduct field visit to walk the watershed and identify and confirm potential projects throughout watershed, with a focus on locations that have been identified in the hydraulic model and through discussions with stakeholders.

3.2 Hydraulic Modeling

- The team will utilize the existing HEC-RAS model for Spring Branch obtained from the FRIS website and supplement with additional field collected data as needed to serve as an existing conditions baseline for floodplain elevations and extent, and as a means of modeling proposed improvements.
- The team will develop a hydrologic model using TR-55/20 for the watershed hydrologic analysis and will document the resultant discharges at flow change locations relevant to the project retrofit hydraulic models for the 2-, 10-, 25-, 50-, and 100-year storm events. TR-20 shall utilize the centroid NOAA Atlas 14 rainfall and Type C distribution tables. The methods and results of the hydrologic model will be documented in form of a technical memo. The

watershed will be subdivided within the model as needed to demonstrate the effectiveness of localized improvements on the overall watershed model

- This information will be input into the model and runs will be developed for the 2-, 10-, 25-, 50-, and 100-year storm events based on current land use conditions.

3.3 Project Prioritization

- The project team, with guidance from the Town and public input, will identify the best combination of projects to achieve the Town's goals throughout the Spring Branch watershed.
- Prioritize identified projects based on hydraulic effects, available grant/matching funding available, Town goals, and stakeholder input.
- Create project cut sheets summarizing each project, which will include conceptual design, project estimates (ROW, design, permitting, and construction) and rendering of project.

3.3 Traffic Engineering Services

- To be completed by Ramey Kemp.

TASK 4 – CONCEPT DESIGN AND ESTIMATE DEVELOPMENT

4.1 Conceptual Design

- For identified projects, a conceptual design will be developed to approximately the 10% level to create an estimate for the project.
- These projects will be identified in one of four categories: stream restoration, stormwater facility, infrastructure modification, infrastructure removal.

4.2 Estimate Development

- The project team will prepare estimates after the final determination for which identified projects are selected for the resiliency plan. These estimates will include project contingency and escalation costs based on a timeline developed for full project implementation. Estimates will include costs of ROW, design, permitting, and construction.

4.3 Grant funding identification

- The project team will identify various grant funding opportunities (local, state, and federal) for each project, identify grant cycles, and determine grant reporting responsibilities for each project to determine full plan implementation timeline.

TASK 5 – STAKEHOLDER MEETINGS

5.1 Technical Advisory Committee

- The consultant will work with the Town of Smithfield’s Planning Director to identify appropriate Town and County stakeholders to incorporate in the planning process. This group will be the Technical Advisory Committee (TAC).
- Three meetings with the TAC will be conducted. The first meeting will be held as soon as possible from Notice to Proceed (NTP) after the group has been identified and the meeting scheduled. The second will occur after the baseline analysis is complete to review and discuss the existing document review, various existing conditions assessments, and projects that have been identified. This meeting will also serve as a review of public meeting materials. The third and final meeting will serve as a final review of all public comments heard to date, as well as a review of the now-completed Draft Final Report. This feedback will enable our team to complete the Final Report, which will be presented to Town staff for final review and approval.
- A minimum of one (1) but no more than two (2) members of McCormick Taylor’s team will attend the Technical Advisory Committee meetings.

5.2 Public Outreach

- Initial outreach will begin with landowners within the Spring Branch Watershed prior to field work gathering existing conditions data. McCormick Taylor will draft a letter for the town to put on their website to inform residents located within the watershed and give them an outline of project timeline along with links that show project updates and upcoming meetings.
- As project activities progress, McCormick Taylor anticipates one (1) public-facing event with the public to gather comments. Our team will assist the Town of Smithfield in organizing and facilitating the meeting, and it is anticipated the in-person meeting will be held in a convenient location for local residents. The public meeting will occur after second TAC meeting showing potential projects and prioritization and will be presented to the community with large poster boards.
- To help encourage participation and attendance for the meetings, McCormick Taylor will create a promotional flier/fact sheet, a mailer letter, social media posts (3 total), website content advertising the meeting, and content for the Town to send out an email blast. It is anticipated the graphic design for these materials will be branded using the colors and style of the Town of Smithfield to keep the branding familiar to the community. Fliers will be distributed to neighborhood locations prior to each event, and the TAC will encourage local residents and business owners to spread the word throughout the community. Website, eblast and social media content will be provided to the Town of

Smithfield for their use to promote the meeting. Up to 50 fliers will be printed for distribution to public locations.

- Specific activities under this task include; assembling plans displays (6); sign-in sheets, fact sheets (1), comment forms and comment boxes; directional signage for the meetings; publicizing the meetings, notices to local officials and stakeholders; set-up of presentation materials; coordinating sign-in; and tear-down
- Following the event, McCormick Taylor will prepare a meeting summary. Any input or comments received during the meeting will be collected. After the 30-day comment period all public comments will be addressed, combined into one document for review, and a summary will be developed to be posted on the Town's website.
- Two (2) members of McCormick Taylor's team will attend the Public Outreach meeting.

TASK 6 – FINAL RESILIENCY PLAN DEVELOPMENT

6.1 Final Plan Review

- The project team will organize all information and create a clear, concise, and comprehensive report outlining projects identified in our study and what combination of these projects yields the most favorable outcome for the residents, Town staff, and stakeholders of the Spring Branch Watershed. Within the document, each identified project will have a conceptual plan and estimate generated, potential grant funding sources identified, potential problems and solutions listed, and grant funding cycles to estimate completion dates of each individual project, giving everyone a tentative timeline for full implementation of the plan. Appendices will include data obtained throughout the process and other significant data.
- The final report will include the following:
 - Summary of known historic flooding issues within the Town.
 - Project goals and objectives.
 - Summary of coordination with stakeholders, including applicable agencies and/or organizations.
 - Comprehensive list of all projects considered.
 - Final selection criteria.
 - Project prioritization matrix.
 - Project cut sheets including:
 - Estimated project costs.
 - Potential grant funding mechanisms and cycles
 - Project exhibit/rendering
 - List of potentially impacted properties.
 - List of potential buyout properties.
 - Plan implementation timeline.

6.2 Final Plan Revision

- After the TAC and Town have reviewed the final plan, the project team will make one (1) round of revisions based on these comments.

Deliverables:

- Final Restoration and Resiliency Plan for the Spring Branch Corridor
- Analysis Data (electronic)
 - Hydraulic model information
 - Traffic analysis data

RESPONSIBILITIES OF THE OWNER

The TOWN agrees to perform the following:

- Notify property owners of field work within or adjacent to their properties with information provided by the project team.
- Notify project team of property owners who may pose problems with project team's ability to safely gain access to the project limits and assist the project team with gaining safe access.
- Respond to requests for information and review deliverables in a timely manner.
- Provide available data as requested.