CITY OF HIGH POINT AGENDA ITEM



TITLE: Green Drive Stormwater Infrastructure Improvements – Design Services						
FROM: Robby Stone – Public Services Director Melinda King – Asst. Public Services Director	MEETING DATE: March 18, 2024					
PUBLIC HEARING: N/A	ADVERTISED DATE/BY: N/A					
ATTACHMENTS: Request for Qualifications (RFQ) Proposal						

PURPOSE: To request approval to enter into a contract with Alta Planning + Design, Inc. to provide services necessary for the preparation of a complete design following the engineering report and environmental information document in accordance with guidance from the North Carolina Department of Environmental Quality (NC DEQ) Division of Water Infrastructure (DWI).

BACKGROUND: The State Water Infrastructure Authority approved the City's application, in partnership with Southwest Renewal Foundation (SWRF) of High Point, Inc., for a Local Assistance for Stormwater Infrastructure Investments (LASII) grant from the American Rescue Plan Act (ARPA) for a Stormwater Construction Grant. The project will be an innovative redevelopment of a key city arterial. The project proposes to design and install new Green Stormwater Infrastructure systems along a ¾-mile stretch of W. Green Drive that arcs along the southwest side of downtown, near the headwaters of the drainage area into the Richland Creek watershed. The project area extends in an arc from the intersection of West Green Drive with Main Street, towards the southwest at West Green Drive's intersection with Taylor Avenue for a length of approximately ¾-mile.

Alta Planning + Design, Inc. was the sole proposer and deemed qualified for this project scope.

The project's timeline is subject to the fiscal deadlines set forth by U.S. Treasury for ARPA funds, which require the funds to be obligated by December 31, 2024, and then expended by December 31, 2026. The final project fully constructed must be delivered by the end of December 2026.

BUDGET IMPACT: This project is supported by a Federal Grant in the amount of \$5,000,000.00. There are no local budget impacts. The costs associated with the design services are not to exceed \$1,000,000.00.

RECOMMENDATION/ACTION REQUESTED: The Public Services Department is recommending that Council authorize the appropriate City Official(s) to execute all necessary documents for a contract with Alta Planning + Design, Inc. for the complete design services for the not to exceed amount of \$1,000,000.00.



REQUEST FOR QUALIFICATIONS

Design Services for W. Green Drive Stormwater Infrastructure Systems

January 31, 2024

Proposal Due Date: February 29, 2024

and time: 2:00 PM (EDT)

RFQ Number: 29-022924

Purchasing Contact: Candy Harmon, Purchasing Manager

E-mail: candy.harmon@highpointnc.gov

Phone: 336-883-3222

Virtual Pre-Proposal Conference: February 8, 2024 @ 10:00 AM

Microsoft Teams meeting

Join on your computer, mobile app or room

device

Click here to join the meeting Meeting ID: 270 791 878 434

Passcode: SCKLVf

<u>Download Teams</u> | <u>Join on the web</u>

IF YOU NEED ANY REASONABLE ACCOMMODATION FOR ANY TYPE OF DISABILITY IN ORDER TO PARTICIPATE IN THE PROCUREMENT, PLEASE CONTACT PURCHASING AS SOON AS POSSIBLE

Contact: Candy Harmon (336) 883-3222

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Design Services for W. Green Drive Stormwater Infrastructure Systems

Summary

Pursuant to N.C. Stat. Sec. 143-128.1(A), the City of High Point, North Carolina is seeking proposals from qualified design firms interested in providing design services for the City of High Point W. Green Drive Stormwater Infrastructure Improvements project. The site of this work will be along W. Green Drive from S. Main Street to W. Taylor Avenue (approximately ¾ mile). The intent of this RFQ is to select a Design Firm, by Qualifications-Based Selection (QBS) to provide design services for this project. It is advantageous for the design firm to have experience in designing and constructing systems related to reducing, redirecting, infiltrating, or treating stormwater runoff.

This project's timeline is subject to the fiscal deadlines set forth by U.S. Treasury for ARPA funds, which require the funds to be obligated by December 31, 2024, and then expended by December 31, 2026. The final project fully constructed must be delivered by the end of December 2026. Failure to meet any milestone may result in the forfeiture of ARPA funding for the proposed project. Before execution of a contract the selected firm and project staff will complete a construction schedule.

Background Information

In April 2023, the City of High Point (City) successfully applied for a \$5 million Local Assistance for Stormwater Construction Grant (LASII grant) from the North Carolina Department of Environmental Quality's (NCDEQ's) Division of Water Infrastructure (DWI). This is a project funded by the American Rescue Plan Act (ARPA) and is administered according to all applicable federal and state guidance for ARPA funds, including DWI guidance for ARPA-funded projects and engineering services procurement.

The project will be an innovative redevelopment of a key city arterial. Improving the W. Green Drive corridor is necessary for repairing a broken stormwater sewer and flooding control system for this part of the City; and creating a modern, inner-city green manufacturing/business park in southwest High Point where people live and work (a strategy and City priority first recommended by the 2007 High Point Core City Master Plan that was adopted by City Council).

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Scope of Services

The City seeks qualified firms to provide services including design, construction, engineering and inspection (CEI) services for an ARPA-funded project. The total project budget for the City of High Point W. Green Drive Stormwater Infrastructure Systems project is anticipated to be \$5,000,000 for the entire project, turnkey, including all costs and fees. All costs include site and building construction related expenses; architectural, programming, design, construction related services; testing services; public jurisdiction fees and charges; permits, signage, reasonable design and construction contingency amounts, and other building related professional service fees necessary to fully build the Owner's project. Due to ARPA's fiscal deadlines, the fully constructed project must be delivered by the end of December 2026.

The W. Green Drive Green Stormwater Infrastructure (GSI) project will implement a series of stormwater control measures (SCMs) tree trenches along both sides of the drive, from Main St to Taylor Ave - a length of approximately ¾-mile along 8 city blocks, as well as some adjoining blocks. The project area corresponds to some of the highest elevation areas along the headwaters of Richland Creek, as well as an area where available public streets, public rights-of-way, and vacant land provide the highest opportunity to implement measures to reduce impervious area and capture non-point source stormwater runoff. The project area is not currently being disturbed by any major public, roadway or private development projects, however there are areas of distressed infrastructure assets that already or will soon need repair.

The neighborhood-scale system needs to reproduce the nature-based pre-development patterns of the area, reducing the volume and pollutant loads of the headwaters of Richland Creek. The GSI needs to reduce the flashiness and flooding impacts as currently occurs due to increasing number and intensity of storm events.

The project needs to meet the following types of NC Land and Water Fund Innovative Stormwater Program Manual practices and achieve 84% to 94% pollutant loading reductions:

Reduce runoff volume & rates	Pollutant removal
Promote infiltration & recharging of groundwater	Effectiveness or efficiency
Sustainably maintain or improve qualitative & quantitative hydrologic characteristics	Mimic mechanisms of natural systems
Address aesthetics (appearance, insects, odors)	Collaborating in new or different ways to protect water quality
Changing attitudes, values or behaviors	

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Design Firm Selection Process

- A) General: This request for qualifications does not commit the City to enter into agreement, to pay any costs incurred in the preparation and submittal of a proposal in response to this request or in subsequent interviews and negotiations, or to procure a contract for the project. The City will require the selected consultant(s) to negotiate the fees for the project and to submit a scope, technical and/or other revisions to the proposals, as needed. The City reserves the right to perform all or some of the services described in this document with its own work force. The City also reserves the right to issue future Requests for Qualifications (RFQs), as needed, and solicit responses from firms not selected as part of this process.
- **B)** <u>Qualifications-Based Selection Criteria:</u> RFQs are traditionally evaluated and ranked based upon objective qualifications-based criteria. However, due to the complexity and importance of this project, the City may select a short list of consultants for interviews prior to making a final selection. The selection criteria are as follows:
 - a) Overall content and quality of the submitted RFQ
 - b) Relevant experience, expertise, and qualifications of the project team
 - c) Overall technical capabilities
 - d) Project management (strength and experience on similar projects)
 - e) Track record on past projects in delivering quality professional services in a timely manner
 - f) Consultant's performance on previous North Carolina municipal projects based on information gathered by the City and/or through the references provided by the Consultant
 - g) Demonstrated commitment to the City's M/WBE Program for professional services either directly through Historically Underutilized Business certification or indirectly through sub-consultant partnering with a HUB firm and/or demonstrated commitment to the City's DBE Program for professional services either directly through Disadvantaged Business Enterprise certification or indirectly through sub-consultant partnering with a DBE firm. To receive full consideration under this criteria, include recent project(s) and the participation percent awarded to HUB certified firms or DBE certified firms.
 - h) Any special or unusual terms and conditions for the contract
 - i) Information obtained through interviews with short-listed consultants
- **C)** Rating and Selection Team: A selection committee has been established to review and evaluate all documentation submitted in response to this Request for Qualifications. The committee will conduct a preliminary evaluation of all documentation to determine that firms are qualified to perform the required services.

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- D) To be considered for this project, each submittal must contain the information indicated in this RFQ. It is the intent of the City of High Point to make a selection in a timely manner following the submittal date. The City of High Point reserves the right to reject any or all qualifications or to waive any and all formalities and the right to disregard all non-conforming or conditional qualifications and to enter into a contract with the firm or firms that will serve in the best interest of the City of High Point. The City is not legally required to enter into a contract as a result of this Request for Qualifications. All deliverables will become the property of the City of High Point.
- E) Interviews may be required for this process. The selection committee may elect to short list firms to conduct an informal interview to discuss any innovative project approach, schedule, and/or to meet key members of the proposed project team. All firms submitting qualifications will be notified in writing as to the outcome of the selection process.

Schedule for The Selection Process

RFQ Issue Date	January 31, 2024
Virtual Pre-Proposal Conference:	Thursday, February 8 at 10:00 AM Microsoft Teams meeting Click here to join the meeting Meeting ID: 270 791 878 434 Passcode: SCKLVf Download Teams Join on the web
Questions Due to Purchasing	February 12, 2024, by 2:00 PM
Responses Provided	February 14, 2024 or ASAP
RFQ Submittal Due Date	February 29, 2024, by 2:00PM

Submission Guidelines

To facilitate the City's objective review of the RFQs, the consultants are requested to organize the main document using a standardized format. Each RFQ should contain the following:

- A) A cover letter on company letterhead signed by a principal or other member of the firm authorized to commit the firm to contract for professional services.
- **B)** Table of contents, with page numbers
- **C)** Information on the following topics:
 - a) **Executive Summary:** Should address the highlights of the RFQ, along with the strengths and special expertise of the firm and the associated team to successfully

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- accomplish the objectives of the City. Please limit the executive summary to one page.
- b) <u>Statement of Qualifications</u>: Identify and describe the qualifications of the firm and professional services that may be provided by the consultant or consultant team in response to this request. Also include information on any proposed sub-consultants. Note which team members were involved in referenced projects and the time period involved in referenced, completed or current projects. Also highlight any projects performed for the City of High Point during the past 5 years.
- c) Project Team & Project Management: Identify the proposed project team (including any sub consultants) and key personnel for the successful completion of projects in partnership with the City. Include brief resumes of the project manager and up to four (4) project team members including office location, years of experience, certifications, and education. Identify the project manager or primary contact and any other team leaders proposed, and briefly describe how projects will be successfully managed. It is expected that the team members proposed in the RFQ will be those assigned to work on the project for the City. Also describe the firm's quality assurance / quality control methods.
- d) <u>Project Schedule</u>: Describe the planned and envisioned workload of the proposed team members for the timeframe of this contract and verify that proposed staff will be prepared for timely completion of projects under a potential contractual agreement with the City.
- e) <u>Terms and Conditions of the Contract</u>: The City proposes to use a standard City of High Point contract for professional services. This information will be provided to the selected consultant(s) during contract and scope negotiations. Should the consultant have any special or unusual contract conditions or limitations, the City should be advised of these in this section of the RFQ. Also note your understanding of and commitment to the City's M/WBE program.
- f) References: Project reference list describing at least four (4) projects completed within the past five years that represent the strengths and unique qualifications of the firm or team. The list should contain project titles, locations, start and end dates, name of project managers, and name, phone number, and email address of references. The contact person should be capable of speaking to the firm's and team's ability to finish projects within the project timeframe and the firm's demonstrated ability to respond to the proposed project.
- g) <u>Format</u>: RFQs must be submitted electronically and be 12pt font size and limited to no more than 20 pages (8 ½ x 11) excluding the cover page, cover letter, table of contents, and any section dividers. The proposal shall be submitted by an official

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authorized to bind the submitter to its provisions and who is authorized to negotiate the final scope of work and fees for inclusion in a later Supplemental Professional Services Agreement with the City.

h) **Questions:** Any questions regarding this RFQ requiring responses prior to due date are to be submitted in writing by no later than **February 12, 2024, by 2:00 PM** to the attention of:

Candy Harmon candy.harmon@highpointnc.gov

Responses will be provided via Addendum by February 14, 2024.

General Requirements

- a) If selected, the consultant(s) shall be registered through the NC Department of the Secretary of State and the City of High Point.
- b) Insurance Requirements: Proposals shall include information certifying that the consulting firm is capable of providing the following minimum insurance coverage prior to execution of a professional services agreement. A copy of firm's Certificate of Insurance (COI) will be required at the time of selection. A copy may be provided along with submittal.

c)	<u>Insurance</u>	<u>Amount</u>
	(a) Workers' Compensation	\$500,000
	(b) Employers' Liability	\$500,000
	(c) General Liability	\$1,000,000
	(d) Automobile Liability	\$1,000,000
	(e) Umbrella	\$1,000,000
	(f) Professional Liability	\$1,000,000

d) E-Verify Affidavit

Under North Carolina law, the E-Verify requirement applies to private employers doing business in this state that have 25 or more employees working in this state. If contractors are individuals who are self-employed (i.e., one employee), or with a business with less than 25 employees, that individual/business is not subject to the E-Verify requirements.

It is the City's responsibility to comply with E-Verify, the successful bidder/consultant will be required to submit the completed E-Verify affidavit at execution of this contract.

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Submission Date

Firms are invited to submit letters of interest and qualifications to the City of High Point Purchasing Department by <u>2:00 P.M. on February 29, 2024.</u> Letters of interest and qualifications submitted after this deadline will not be considered.

Electronic Submittals

Only electronic submittals will be accepted, and firms shall submit one electronic (PDF) version of the proposal.

Firms submitting proposals are encouraged to carefully check them for conformance to the requirements stated above. If submittals do not meet these requirements, they will be disqualified. No exception will be granted. Submittals shall be provided to Candy Harmon candy.harmon@highpointnc.gov

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AFFIDAVIT-MINORITY PARTICIPATION

The City of High Point is committed to providing equal opportunities for participation in all aspects of the City of High Point contracting and purchasing programs including, but not limited to, participating in procurement contracts for, materials, services, construction and repair work activities, and lease agreements in the City of High Point. The Purchasing Division actively seeks to identify qualified minority, handicapped, disadvantaged, and women-owned business enterprises so as to widen opportunities for participation as providers of goods and services, increase competition and ensure the proper and diligent use of public funds.

(NOTE: THIS FORM IS TO BE SUBMITTED WITH THE BID PROPOSAL)

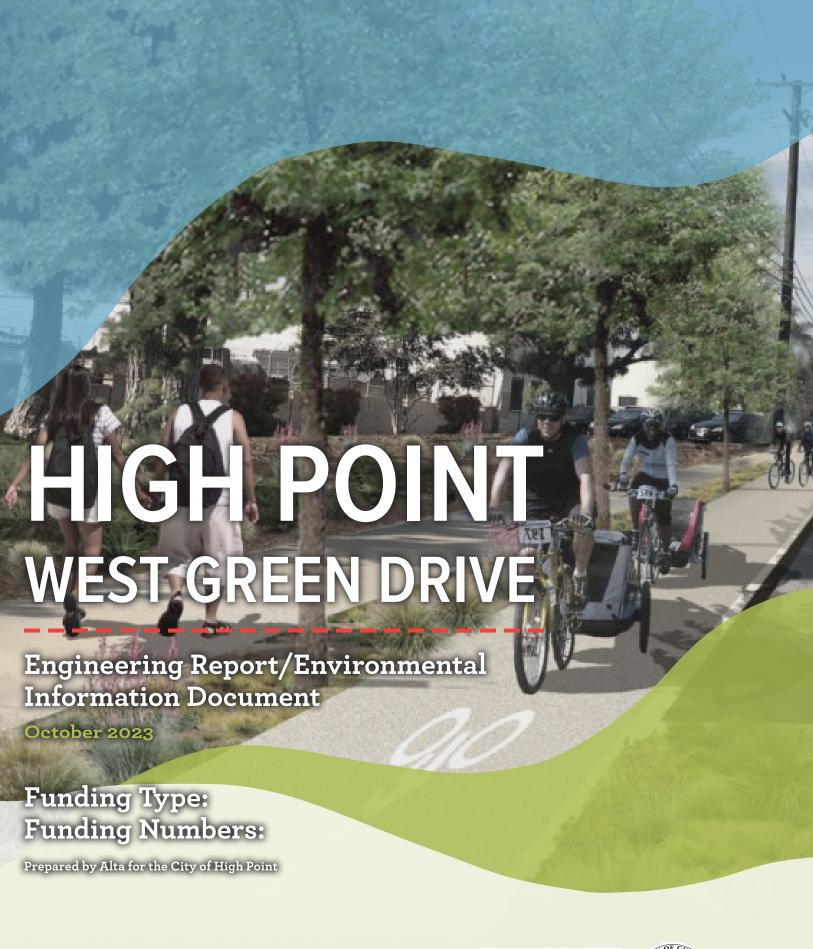
Portion of the Work to be performed by Minority Firms

			I_do hereby certify t	that on the
(Name of Bio	dder)			
(Project Nam	ne)	A . (SD: 1 @	
Project ID#		Amount of	Bid \$	
I will expend a minimum of% business enterprises. Minority busine vendors, suppliers or providers of profesfirms listed below.	of the total sses will be ssional servi	dollar amo e employed ces. Such	ount of the contract with d as construction subcountract work will be subcontract	h minority ontractors, cted to the
Attach additional sheets if required				
Name and Phone Number	Minority Category	HUB Certified (Y/N)	Work Description	Dollar Value
*Minority categories: Black, African American (F) Socially and Economically Disadvantaged (I) The undersigned hereby certifies that he authorized to bind the bidder to the comme	O) Employee S or she has re	tock Owners	hip Plan (ESOP) ms of this commitment a	
Date: Name of Authorized	Officer:			
Si	gnature:			
	Title:			

STATE OF NORTH CAROLINA CITY OF HIGH POINT E-VERIFY AFFIDAVIT

l,	(the individual attesting below), being duly authorized by and on behalf of
	(the entity bidding on project hereinafter "Employer") after first being duly
sworn	hereby swears or affirms as follows:
1.	Employer understands that <u>E-Verify</u> is the federal E-Verify program operated by the United States
Depart	ment of Homeland Security and other federal agencies, or any successor or equivalent program used to verify
the wo	rk authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2.	Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work
in the	United States, shall verify the work authorization of the employee through E-Verify in accordance with
NCGS§	64-26(a).
3.	Employer is a person, business entity, or other organization that transacts business in this State and that
employ	ys 25 or more employees in this State. (mark Yes or No)
	a. YES, or
	b. NO
4.	Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project
Employ	yer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.
This	day of, 20
•	ure of Affiant r Type Name:
State o	of County of
Signed	and sworn to (or affirmed) before me, this the
day of	, 20
Му Со	and sworn to (or affirmed) before me, this the

Notary Public











Section 1: Executive Summary

Project Description

The High Point W Green Drive Green Stormwater Infrastructure (GSI) project will be an innovative redevelopment of a key city arterial in a distressed part of town that has been facing long-standing issues for decades with decayed infrastructure, flooding, and non-point source watershed pollution. The project detailed in this Engineering Report/Environmental Information Document (ER/EID) proposes to design and install new GSI systems along a 3/4-mile stretch of W Green Drive that arcs along the southwest side of downtown, near the headwaters of the drainage area into the impaired Richland Creek watershed.

By reducing, redirecting, infiltrating and treating stormwater runoff, the project will be the critical tool to bring stormwater sewers in the neighborhood closer to current standards, reducing flooding in city streets, and targeting non-point stream impairment at its most critical location, the headwaters.

The project is being planned and designed in accordance with the most innovative guidance for GSI infrastructure from the North Carolina Department of Environmental Quality (NCDEQ), the Environmental Protection Agency (EPA), Federal Emergency Management Agency (FEMA), and municipal GSI innovators from across the country.

Once complete, the project will also contribute to the ongoing neighborhood revitalization efforts, offering a brand new, green, tree-lined streetscape; safer and more attractive pedestrian spaces; better access to nature and the Richland Creek watershed; and access to a new greenway.

Project Location

The project is located in the City of High Point in Guilford County. The project area is urban in nature, extending in an arc from the intersection of West Green Drive and Main Street, towards the southwest at West Green Drive's intersection with Taylor Avenue for a length of approximately ¾-mile (see Study Area Map below).

This arc is located very near the ridgeline that divides the Richland Creek watershed to the east and southeast, and the Payne Creek in the Rich Fork Creek watershed, which is part of the Yadkin Pee Dee Basin. Richland Creek is a headwater tributary to the Deep River, which eventually connects to the Cape Fear River. The Richland Creek watershed is bisected by interstates, from northeast to southwest by I-85 Business; and from north to southeast by I-74. The I-85 bypass also crosses the watershed at its southeast corner, with bridges over both the Deep River and Richland Creek near their confluence.

Area Overview



Section 1: Executive Summary

W GREEN DR PROPOSED **GREEN STORMWATER INFRASTRUCTURE**

HIGH POINT W GREEN DR ER/EID

Legend

Street Centerline

— Streams

Greenway Corridor (est. footprint of trail)

[___] All Parcels

- - Approx. GSI Limit of Disturbance

Approx. Location of Proposed GSI







500 FEET

Section 2 & 4: Current Situation and Need for Project

Water Quality and Quantity Issue

SOURCE OF WATER CAUSING THE STORMWATER QUALITY / QUANTITY ISSUE

The Richland Creek watershed is considered 28.2% impervious, with its largest concentration of impervious surfaces on its western half and northwestern corner—in other words, alongside the West Green Drive project area arc.

The creek flows for approximately 9 miles from its headwaters to its confluence with Deep River, which then drains into the Randleman Reservoir. The reservoir is the critical source of drinking water supply for over 500,000 people in Guilford and Randolph counties, with current drinking water production capacity of 14.7 MGD and potential to expand to 48 MGD.

IMPAIRMENT OF THE PROJECT'S WATERSHED

Water in the creek is significantly impaired, contributing to chronic challenges for the drinking water supply system. Levels of fecal coliform, turbidity, and sedimentation are extremely high along the creek. Peak stormwater flows in the creek are about 25% higher than the average for similar streams with similar soils and precipitation levels, reflecting the amount of impervious area in the watershed. Richland Creek was initially listed as impaired in 1998 by the NCDEQ; and then listed on the 2002 North Carolina 303 (d) impaired waters list for a lack of aquatic life. In 2004, the Total Maximum Daily Load (TMDL) for fecal coliform was established for Richland Creek and Muddy Creek, requiring an 82% reduction of fecal coliform to achieve the designated use classification of WS-IV, protecting aquatic life and secondary contact human recreation uses. In addition, a significant reduction in impervious area and/or stormwater runoff into the creek was recommended, to reduce the levels of turbidity, sedimentation, and other potential contaminants that would impact the creek water and drinking water supply.

FLOODING WITHIN THE PROJECT AREA

Flooding is another frequent issue in the neighborhood and at the headwaters of the creek. As an example, in August 2019 heavy downpours overwhelmed the stormwater sewers that channel one of the headwaters of the creek, and created flash flooding along West Green Drive. Where the average daily rates in High Point are typically less than a quarter inch, the storms generated nearly an inch and a half over 36 hours - a level of slightly more concentrated rainfall that is unfortunately

becoming more and more typical, and exceeding the capacity for infrastructure designed in accordance with older standards. Disruptions from flooding included shutting down the Salvation Army office located downtown at 301 W Green Drive, displacing 34 women and children. The Salvation Army center was closed nearly four months for refurbishing, but reopened in time for Christmas 2019

PREVIOUS EFFORTS AND PLANNING THAT HAVE IDENTIFIED THIS PROJECT'S NEED

In 2021, the Piedmont Triad Regional Council (PTRC) completed a watershed stress catchment ranking of areas in the watershed, accessing areas that showed the highest levels of erosion, litter, lack of stream buffers, and potential high levels of non-point source stormwater runoff. This project area ranks third and sixth in that study, out of over 30 subwatershed areas.

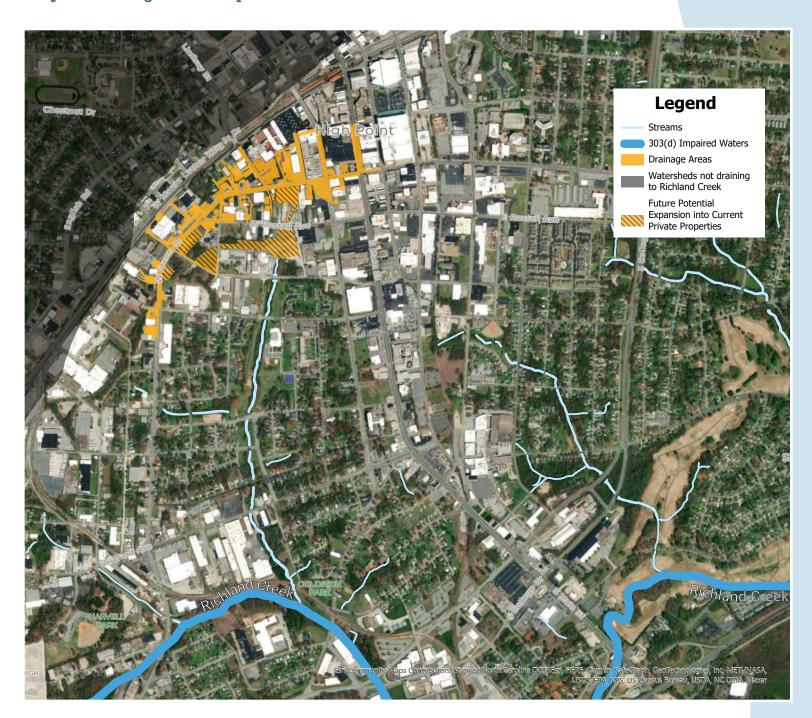
The Southwest Renewal Foundation of High Point (SWRF) had been advocating for improvements to W Green Drive, to reduce flooding and water pollutant issues, since 2017. Prior to the *Richland Creek Watershed Action Plan* (Oct 2021), PTRC worked with the SWRF and local community leaders to identify 40 potential green infrastructure projects in the areas labeled as most stressed, including potential de-paving projects, constructed wetlands, and potential locations for bioretention, stormwater swales, permeable pavement construction, and stream bank stabilization measures.

This information was compiled into the *Southwest High Point Green Infrastructure Plan*, January 2019. W Green Drive and surrounding areas contained many of these priority projects.

A WINDOW OF OPPORTUNITY

In addition, other features of the project area elevate its priority for implementation of measures to better manage stream water quantity and quality. As previously mentioned, the project area corresponds to some of the highest elevation areas along the headwaters of the creek, as well as an area where available public streets, public rights-of-way, and vacant land provide the highest opportunity to implement measures to reduce impervious area and capture non-point source stormwater runoff. Finally, the project area is not currently being disturbed by any major public roadway or private development projects, but are areas of distressed infrastructure assets that already or will soon need repair, thus providing a window of opportunity for implementation.

Project Drainage Area Map



Section 3: Design Basis/Future Situation

Overview

The project is designed to address both stormwater quantity and quality. In summary:

- The project will implement Nature-Based Stormwater Solutions at a neighborhood-wide scale, with GSI SCMs with an initial capacity to handle more than five acres of stormwater runoff
- The project meets the following types of projects from the NCLWF Innovative Stormwater Program Manual:
 - Reducing runoff volumes and rates
 - Promoting infiltration and recharging of groundwater
 - Sustainable maintaining or improving qualitative and quantitative hydrologic characteristics after land development
 - Mimicking mechanisms of natural systems
 - Operation and maintenance protocols (since GSI SCMs require their own operations, cleaning, and maintenance requirements)
 - Pollutant-removal mechanisms
 - Effectiveness or efficiency
 - Addressing aesthetics (appearance, insects, odors), including recognizing value of improving aesthetics
 - Supporting natural systems or restoring function of natural systems
 - Changing attitudes, values, or behaviors
 - Collaborating in new or different ways to protect water quality
- The project will reduce pollutant loading on the watershed from the drainage area it covers by between 84% and 94% with bioretention
- The project is designed so that the components of the project are scalable - in other words, future phases of design and construction can add additional SCMs in the neighborhood to increase the volume and treatment capacity of the system
- The project complements and greatly enhances the capacity
 of the adjacent Jacobs Place stormwater improvement project,
 which will replace the existing and failing stormwater piping
 system at the intersection of W Green Drive and Jacobs Place.

- In that sense, green infrastructure will greatly increase the efficiency of existing and upcoming grey infrastructure
- The project will prepare a project-specific Stormwater BMP Operation & Maintenance Plan
- The project is being led by a partnership among the City of High Point, the PTRC, and the Southwest Renewal Foundation (see details in Section 2C, above)
- It is the intent of the City of High Point, PTRC, and SWRF
 to document the results of the project, and promote
 it as a model in upcoming conferences, as well as in
 online postings from all three partners. A project final
 report will be prepared, with a summary of project goals,
 objectives, the work accomplished, and any findings and
 recommendations. The project will serve as a model for
 increasing GSI projects throughout High Point, Guilford
 County, surrounding communities, and across the state

Finally, the project has already undergone an innovative GSI SCM planning process, which proposed several alternative SCM and BMP approaches for each block of the project area, which were then screened by the project team and the City of High Point public works and engineering departments to arrive at the preferred SCMs now included in the project. For more details on the process, and records of the iterations of the alternatives, please refer to the attached "W Green Drive GSI SCM Alternative Development and Selection Process Memo" (September 2022), prepared by Alta Planning and Design for the City of High Point, PTRC, and SWRF.

Project Benefits

The project is located at the headwaters of Richland Creek, most specifically of its most impacted initial section in the western side of the subwatershed. It is Assessment Unit 4338, a Category 5 stream on the 303(d) impaired waters listing.

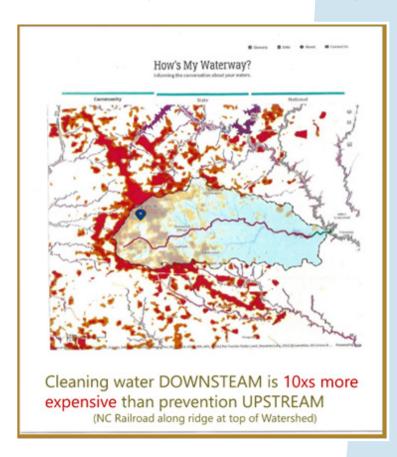
Its classification results from fair, poor, or severe impairment to aquatic resources and to secondary contact human recreation uses. Richland Creek was initially listed as impaired in 1998 by NCDEQ; and then listed on the 2002 North Carolina 303 (d) impaired waters list for a lack of aquatic life. In 2004, the total maximum daily load (TMDL) for fecal coliform was established for Richland Creek and Muddy Creek, requiring an 82% reduction of fecal coliform to achieve the designated use classification of WS-IV, protecting aquatic life and secondary contact human recreation uses. In addition, a significant reduction in impervious area and/or stormwater runoff into the creek was recommended to reduce the levels of turbidity, sedimentation, and other potential contaminants that would impact the creek water and drinking water supply.

The Upper Cape Fear Basin Association (UCFRBA) coalition monitoring network has one ambient monitoring station along Richland Creek (station number B4380000), which is monitored monthly. Based on 10 years of water quality data collected at this station, stormwater runoff and other non-point sources of pollution are contributing to the impacts, thus failing to meet water quality standards for biological, turbidity, sedimentation, and other potential contaminants. The City of High Point conducts quarterly water quality sampling at 12 sites along Richland Creek, analyzed for fecal coliform. The North Carolina State University College of Sciences started additional sampling along the Creek this past Summer (2022). Results of these sampling efforts all confirm the continued presence and lack of mitigation of fecal coliform and turbidity.

The project will directly improve water quality on Richland Creek by capturing over five acres of stormwater runoff, infiltrating and treating it before it releases into the stormwater sewers that represent two of the main streams that are the headwaters of Richland Creek. By the use of bioretention tree trenches, it is anticipated that between 84% and 94% of the annual runoff in the project area will be treated or infiltrated, greatly reducing the pollutant load on the watershed. In simple terms, the majority of the stormwater collected in the tree trenches will evaporate from the tree trench surface, be collected and transpire from the leaves of trees, or infiltrate into the soil, replenishing the local aquifers. In that process, contaminants will be removed and prevented from reaching the creek and downstream.

FLOOD REDUCTION

Additional flooding has impacted other properties in the project area since then, including 208 Jacob's Place and 608 West Ward Avenue. The flooding is caused by the large amount of impervious surfaces located at the headwaters of Richland Creek, and to the aging and undersized infrastructure that is in place. The Jacob's Place project, currently under design, will address one section of the worst flooding near the intersection of W Green Drive and Jacobs Place. Along Jacobs Place, the existing reinforced concrete pipe (RCP) stormwater system is unable to provide 2- and 10-year



stormwater capacity. The system further surcharges to flood roadways throughout the headwaters of the drainage basin, does not properly intercept runoff, and is generally in poor structural condition. That project will abandon the current stormwater pipe system, install a new parallel one, and provide additional catch basins and drop inlets to reduce gutterline and roadway flooding potential.

The proposed GSI project will connect to the Jacob's Place project and greatly enhance the capacity of the stormwater system to reduce similar street and property flooding up and down W Green Drive for approximately 8 blocks, as well as on adjoining blocks.

DOWNSTREAM IMPROVEMENTS

Collaboration between the City of High Point and Guilford County is essential to meet the goals and achieve the outcomes of the proposed project. The project will help each of these two government entities reach some of their critical stormwater goals, as follows:

the water quality and quantity impacts to the regional drinking water supply from the Deep Creek watershed and the Randleman Reservoir. Guilford County Watershed Protection/Stormwater Management program's charge is for "proper management of stormwater runoff that will protect property, control stream bank erosion, reduce flooding,

- protect floodplain and wetlands, protect water resources and riparian and aquatic ecosystems."
- The project will for the first time implement a concerted green stormwater infrastructure system strategy for a neighborhood, and thus will serve as a model for future improvements throughout the City. The City of High Point Department of Public Services, Stormwater Division mission is "to provide citizens with a comprehensive stormwater management program that addresses stormwater pollution and provides timely assistance in making drainage improvements on public and private property based on eligibility and prioritized needs."

Finally, this project will demonstrate the connectivity of hydrology in High Point, Guilford County and neighboring communities, which is necessary for long-term progress toward clean water, quality of life, and public and environmental health. What we do in innercity southwest High Point effects citizens throughout Guilford County and the region.





(Above) Photos of water quality testing done by NC State team in August 2022.

Section 5: Alternatives Analysis and Project Cost

Alternatives Analysis

This chapter describes alternatives that were reviewed during the planning process for better stormwater management and flood prevention on West Green Drive. The alternatives were designed to support several key criteria, including:

- Implementation of Nature-Based Solutions
- Limiting acquisition costs, by utilizing available public rightsof-way and public property
- Overall level of improvements on the Richland Creek watershed water quality
- Overall reduction in flooding
- Scalability for future system expansion and incorporation of adjacent areas and neighborhoods
- Complementarity to existing and planned future sewer improvements,
- Equity and stakeholder and public feedback/support, and
- Cost Efficiency.

This alternatives analysis examines a No-Build Alternative — Alternative 1, a Grey infrastructure Alternative — Alternative 2, and two versions of Green Stormwater Infrastructure installation — a more extensive Alternative 3, the Initial GSI Alternative; and the preferred alternative, Alternative 4, the 2023 GSI Alternative. These alternatives are described in more detail below.

ALTERNATIVE – 1 NO-BUILD ALTERNATIVE

This approach makes no changes to the existing sewers or streetscape, nor to existing property boundaries. It has negative environmental impacts, because water quality and flooding issues would remain unresolved. In addition, it would result in continued blight, disinvestment and the loss of jobs.

ALTERNATIVE 2 – GREY INFRASTRUCTURE ALTERNATIVE

This alternative would attempt to improve stormwater quality and reduce flooding by increasing the size and capacity of the underground sewer system along the entire ¾-mile length of the project area.

In effect, a small portion of this system is currently being built in the form of the Jacob's Place sewer replacement project, which is being designed to replace aging sewers and increase sewer capacity where Jacobs Place crosses West Green Drive, a location that has seen constant flooding in the past. This project will replace sewers along approximately an 1/8-mile block north of West Green Drive and increase the culvert capacity under the roadway, to prevent the historical flooding. The issue is that this project is costly, exceeding the budget for Alternatives 3 and 4, while only addressing one small segment of the project area. Stormwater volumes and quality would remain unaddressed in remaining blocks, and might still contribute to overtaxing this small segment of infrastructure improvement.

Alternative 2 would use a similar grey infrastructure approach along remaining blocks of the project area, requiring significant upgrades to sanitary and stormwater sewers, additional culverts, and significantly more excavation, and utility coordination and relocation. Because of its high cost, little budget would be left over for streetscape enhancements; and by nature the system might be less effective in controlling nonpoint sources of pollution to the streams.

ALTERNATIVE 3 – INITIAL GSI ALTERNATIVE

This alternative would reconfigure the project area in a more comprehensive, strategic, and green way. A total of over 40 tree trenches and 3 infiltration basins would be installed along the project corridor, providing capacity for management of over 10 acres of stormwater runoff.

ALTERNATIVE 4 – 2023 GSI ALTERNATIVE: PROPOSED ALTERNATIVE

This alternative is similar to Alternative 3, but reduces the total number of tree trenches to 18 along nine street blocks, complemented by tree pits to maintain a consistent and attractive streetscape; and eliminates the infiltration basins and additional

property acquisition needs. This alternative is the preferred option of the City, stakeholders, and the public, as it retains the majority of the benefits of Alternative 3 at a more cost-effective basis, while limiting the amount of additional disturbance and additional property acquisition required.

Summary of Alternatives

Table 1 provides a summary of the alternatives presented above and how they address the purpose and need of the proposed action.

Table 1- Summary of Alternatives					
	Alternative 1 –	Alternative 2 –	Alternative 3 –	Alternative 4 –	
Alternative Elements	No Build	Grey Infrastructure	Initial GSI Alternative	2023 GSI Alternative	
Implements Nature- Based Stormwater Solutions	No	No	Yes	Yes	
Utilizes solely public rights-of-way	Yes. No changes to existing property boundaries.	Yes. No changes to existing property boundaries.	No. Additional acquisitions required.	Yes. No changes to existing property boundaries.	
Improves watershed stormwater quality	No	Limited improvements.	Most extensive benefits.	Extensive benefits, can be scaled up later for additional benefits.	
Reduces flooding	No	No (limited impact)	Yes	Yes	
Project Scalable	No	No	Yes	Yes	
Complements existing sewer improvements	No	Yes	Yes	Yes	

	Table 1- Summary of Alternatives					
	Alternative 1 –	Alternative 2 –	Alternative 3 –	Alternative 4 –		
Alternative Elements	No Build	Grey Infrastructure	Initial GSI Alternative	2023 GSI Alternative		
Cost-efficient use of funds	No	No	Funding not available for full set of proposed improvements	Yes		
Equity and stakeholder and public feedback/support	No. Existing conditions do not solve water quality and flooding issues, and contribute to continued blight and disinvestment in the neighborhood. Public and stakeholders find the status quo unacceptable.	No. Grey infrastructure only partially solves water quality issues and has limited impact on flooding issues, while contributing little to solve continued blight and disinvestment in the neighborhood.	Yes. GSI system would have significant positive impact in solving water quality and flooding issues, capturing over 10 acres of stormwater runoff. Project also redevelops Green St as a complete street with attractive streetscape and trees. Public and stakeholders prefer this option.	Yes. GSI system would have significant positive impact in solving water quality and flooding issues, capturing over 5 acres of stormwater runoff. In addition, the project has similar impacts to Alternative 3, retaining most of the streetscape elements and thus meeting the public and stakeholders preferences.		
Meet Purpose and Need	No. This alternative fails to meet any of the goals of the project. In fact, it might prove to be extremely detrimental, with continued disinvestment in the neighborhood, continued impairment of Richland Creek, continued flooding, and resultant lack of	Partly. This alternative provides limited enhancements to water quality and flooding. However, it does not adequately address the nonpoint nature of the stormwater runoff, has limited flood reduction benefits, and does not incorporate any of the green elements	Yes. This alternative meets the project's goals, and has the most extensive water quality and flood reduction benefits. However, It provides the largest amount of construction impacts;	Yes. This alternative meets the project's goals, and has the second most extensive water quality and flood reduction benefits. After full design is completed, it might come close to the original goal of managing 10 acres of stormwater runoff. Even if not, it will have approximately		

Table 1- Summary of Alternatives					
	Alternative 1 –	Alternative 2 –	Alternative 3 –	Alternative 4 –	
Alternative Elements	No Build	Grey Infrastructure	Initial GSI Alternative	2023 GSI Alternative	
	redevelopment and loss of local jobs.	of the other alternatives, thus lacking the side benefits of those alternatives.	requires additional property acquisition, design, and coordination; is the costliest, and does not meet the project budgets at this time.	2/3 of the impact of Alternative 3 stowmater water quality management capacity, and similar flood reduction efficacy. It will maintain the streetscape elements of Alternative 3 at a more cost-effective level. It is the preferred alternative for all stakeholders.	

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is defined by CEQ as "the alternative that would promote the national environmental policy as expressed in NEPA's Section 101. This includes:

- 1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
- 2. Assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- 3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- 4. Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an

environment that supports diversity and variety of individual choice;

- 5. Achieving a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities; and
- 6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (National Environmental Policy Act, Section 101).

Alternative 1 does not meet the purpose and need for this analysis. Alternative 2 meets the purpose and need and the criteria outlined in NEPA Section 101 (b) to only a very limited degree, and thus was discarded. And although Alternative 3 surpasses Alternative 4 in fulfilling these factors, it would have additional construction impacts, require additional private property acquisition, and require additional funding.

Alternative 4 would meet the same goals as Alternative 3, though managing slightly less runoff volume. It is scalable and can be expanded in the future. And it was planned to provide similar amount of overall benefits as Alternative 3. Taking all of this into consideration, Alternative 4 best meets the criteria for the environmentally preferred alternative

Project Cost Estimate

A cost estimate was developed for Alternative 4 based on the results of the Alternative Selection process and on the LASII grant award amount allocated to the project. The estimate was completed by Alta Planning and Design Inc in October 2023, and consisted of an update of the preliminary planning-level cost estimate developed for the LASII grant application process.

The update included an estimate for the cost of design and installation of the proposed stormwater control measures (SCMs) in Alternative 4, as well as associated traffic, roadway reconstruction, and pedestrian- and bicycle-safety improvements that might be required. A limited amount of utility relocations was identified and potential costs of relocation included in the estimate. Some costs were listed as allowances (for example, a 5% allowance for "Minor Items", since they might not be easily quantifiable at this stage), and an overall 25% contingency amount included. Below is a summary of the updated cost estimate.

a		ta
Alta Eng	ine	ering SE, PLLC

NOTES:

PLANNING-LEVEL COST ESTIMATE

West Green Drive Stormwater Grant Support Services

LOCATION: High Point, North Carolina

DESCRIPTION: Estimate for West Green Drive Green Stormwater Improvements - Planning-Level Estimate for ER-EID

TOWN/CITY: High Point COUNTY: Guilford

ITEM NO.					UNIT	
DESC. NO.	SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT	PRICE	AMOUNT
0000100000-N		MOBILIZATION	1	LS	\$143,000.00	\$143,000.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	\$105,600.00	\$105,600.00
0043000000-N	226	GRADING	1	LS	\$126,000.00	\$126,000.00
0372000000-E	310	18" RC PIPE CULVERTS, CLASS III	2,708	LF	\$80.00	\$216,640.00
0378000000-E	310	24" RC PIPE CULVERTS, CLASS III	48	LF	\$90.00	\$4,320.00
0384000000-E	310	30" RC PIPE CULVERTS, CLASS III	0	LF	\$110.00	\$0.00
0402000000-E	310	48" RC PIPE CULVERTS, CLASS III	61	LF	\$150.00	\$9,150.00
1121000000-E	520	AGGREGATE BASE COURSE	1,430	TON	\$40.00	\$57,200.00
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	250	TON	\$155.00	\$38,750.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	230	TON	\$175.00	\$40,250.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	30	TON	\$600.00	\$18,000.00
2286000000-N	840	MASONRY DRAINAGE STRUCTURES	23	EA	\$3,000.00	\$69,000.00
2352000000-N	840	FRAME WITH GRATE, STD 840.03	23	EA	\$1,250.00	\$28,750.00
2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	5,981	LF	\$40.00	\$239,240.00
2591000000-E	848	4" CONCRETE SIDEWALK	840	SY	\$125.00	\$105,000.00
2605000000-N	848	CONCRETE CURB RAMP	15	EA	\$2,750.00	\$41,250.00
3628000000-E	876	RIP RAP, CLASS I	60	TON	\$70.00	\$4,200.00
4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	1,080	LF	\$20.00	\$21,600.00
4102000000-N	904	SIGN ERECTION, TYPE E	72	EA	\$150.00	\$10,800.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	\$150,000.00	\$150,000.00
		SPECIAL ITEMS - STORMWATER TREATMENT				
	SP	STORMWATER PLANTERS	1	LS	\$1,337,000.00	\$1,337,000.00
		SPECIAL ITEMS - OTHER				
	SP	WATER LINE RELOCATION	956	LF	\$170.00	\$162,520.00
	SP	SEWER LINE RELOCATION	548	LF	\$175.00	\$95,900.00
	SP	EROSION CONTROL ALLOWANCE	1	LS	\$80,000.00	\$80,000.00
	SP	MINOR ITEMS (4%)	1	LS	\$114,000.00	\$114,000.00

CONSTRUCTION COST SUBTOTAL \$3,219,000.00

ESCALATION TO 2023 (7.5%) \$241,430.00 CONTINGENCY (25%) \$804,750.00

ENGINEERING AND COORDINATION DESIGN FEE (25%)
OPINION OF TOTAL CONSTRUCTION COST (2023)

\$804,750.00 \$5,070,000.00

1) ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY.

SAY, \$5 million

- 2) BASED ON 2022 UNIT PRICES, 7.5% ESCALATION TO 2023 INCLUDED
- 3) MINOR ITEMS INCLUDES PAVEMENT MARKINGS, MINOR UTILITY CONFLICTS/ADJUSTMENTS, REPAIR SEEDING & MULCHING.
- 4) EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS.
- 5) UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS TO BE REFINED AT NEXT DESIGN STAGE.
- 6) ASSUMES DESIGN WILL LIMIT POWER POLE RELOCATION, PARTICULARLY WILL PLANTER AND TREE WELL LOCATIONS
- 7) ASSUMES EXISTING CURB RAMPS AND SIDEWALK TO REMAIN IN PLACE WITH CURB EXTENSIONS/PLANTERS.

COMPUTED
BY TJN

DATE 9/14/2022, Final Check 9/29/2022.

REVISED SF 9/29/2023

¹⁴ Section 6: Proposed Project Description

Overview

More than 50 percent of the construction cost of the project will be used to create new stormwater control measures (SCMs) or to improve, retrofit, repair, rehabilitate or replace existing SCM infrastructure to control stormwater quality

The entirety of the project has been planned to design and build a new Green Stormwater infrastructure (GSI) system of SCMs along the ¾-mile extent of W Green Drive and some adjoining blocks. The new GSI system in the first phase covered by this project is proposed to be composed of 18 tree trenches on 9 street blocks in High Point.

The typical system layout consists of 6- to 11- feet wide bioretention and bio-infiltration tree trenches, on the west/north side of blocks of W Green Drive and some adjoining blocks as well. Where street width or utility conflicts prevent the use of these tree trenches, tree wells are used instead - providing less overall retention/infiltration capacity, but still providing a significant volume reduction and water quality treatment.

The system will be capable in this initial phase of capturing stormwater for a total area of over 300,000 square feet in drainage area, using a total SCM area of 29,794 square feet. Green inlets or curb breaks will be installed just upstream of existing stormwater inlets to collect stormwater runoff into the SCMs. Because of the potential for presence of poorinfiltrating soils (typical soils in the region

are C or D), the SCMs were preliminarily-sized with a 10:1 loading ratio. Should better-infiltrating soils be present, or should SCM design include further soil replacement/underground containment, then additional stormwater storage and management capacity would be available. Thus, SCMs could be reduced in size (saving on cost and disruption), or alternatively, could handle additional runoff quantities and areas.

SCMs will be designed to meet NC Stormwater Design Manual Part C: Minimum Design Criteria and Recommendations for Stormwater Control Measures, as well as guidance from the NCDEQ Stormwater Control Measure Credit Document. SCMs will be designed to manage the first 1-1/2inch of stormwater over the drainage area (exceeding the 1 inch required for areas outside coastal counties), and be ready to be replenished by another storm event within 72 hours. Accordingly, the system will have the capacity to displace a significant volume from the existing stormwater sewers, at the same time treating, infiltrating, and slowly releasing the remaining water into the stormwater sewer. For larger storm events, the SCM system will provide additional capacity to existing drainage and will have an overflow connection to those existing assets to make sure that each SCM itself is not overloaded. This neighborhood-scale system will reproduce the nature-based predevelopment patterns of the area, reducing the volume and pollutant loads on the headwaters of Richland Creek, thus

reducing the "flashiness" and flooding related with the increasing number and intensity of storm events. By infiltrating stormwater, it will also help replenish the regional aquifers, providing for a more even groundwater flow that can keep the creek viable during future droughts.

Finally, the neighborhood surrounding the W Green Drive system currently has a multitude of vacant or underutilized parcels, but is the focus of a concerted effort from City, County, MPO, and nonprofits for redevelopment. As an example in 2021 the City of High Point secured a \$19.8-million USDOT RAISE grant to build the High Point Heritage Greenway, which will parallel and twice cross W Green Drive along the project area. With the combined benefits of the W Green Drive SCMs and the Greenway, as well as a concerted business attraction strategy focused on green businesses, the neighborhood has the incredible potential of becoming a model for green and inclusive redevelopment for the entire state and the US. Accordingly, the first phase of the project has been designed to be scalable and reproducible. The project will accommodate future growth and redevelopment impacts, with a continued focus on reducing impervious surfaces and providing additional nature-based stormwater management capacity for the neighborhood.

Section 6: Proposed Project Description

W GREEN DR PROPOSED **GREEN STORMWATER INFRASTRUCTURE**

HIGH POINT W GREEN DR ER/EID

Legend

Street Centerline

— Streams

Greenway Corridor (est. footprint of trail)

[___] All Parcels

- - Approx. GSI Limit of Disturbance

Approx. Location of Proposed GSI







¹⁶ Section 7: Environmental Information Document (EID)

Overview

Per the NCDEQ Engineering Report/ Environmental Information Document (EID) for Wastewater or Stormwater Infrastructure Fact Sheet issued in March 2023, the State Environmental Policy Act (SEPA) does not require an environmental review for projects funded by the State Project Reserve, including projects funded under the American Recovery Plan Act of 2021. Therefore, a Categorical Exclusion was not prepared for this project. However, a desktop review of environmental conditions was conducted to ensure the project avoided or minimized any impacts to jurisdictional resources. A summary of this review is attached to this Engineering Report, and resources within or adjacent to the project study area are illustrated in Figure 1.

Introduction

The State Water Infrastructure Authority (SWIA) approved the City of High Point's application for a Local Assistance for

Stormwater Infrastructure Investments (LASII) grant from the American Rescue Plan Act (ARPA) for a Stormwater Construction Grant. The project proposes to design and install new Green Stormwater Infrastructure (GSI) systems along a 3/4-mile stretch of W. Green Drive that arcs along the southwest side of downtown, near the headwaters of the drainage area into the impaired Richland Creek watershed. Dewberry Engineers Inc. (Dewberry) was contracted to provide an Environmental Information Document (EID) as part of the City's W. Green Drive Stormwater Infrastructure Improvements project. This memo presents the findings of an initial desktop review of environmental conditions within the project study area.

Methodology

No fieldwork was performed. Per the project scope, a desktop-GIS review of floodplains, wetlands and streams, threatened and endangered (T&E) species, and cultural resources was conducted for the study area on October 3-6, 2023. A

100-foot buffer around the proposed project centerline was used as the project study area (see Figure 1).

FLOODPLAINS

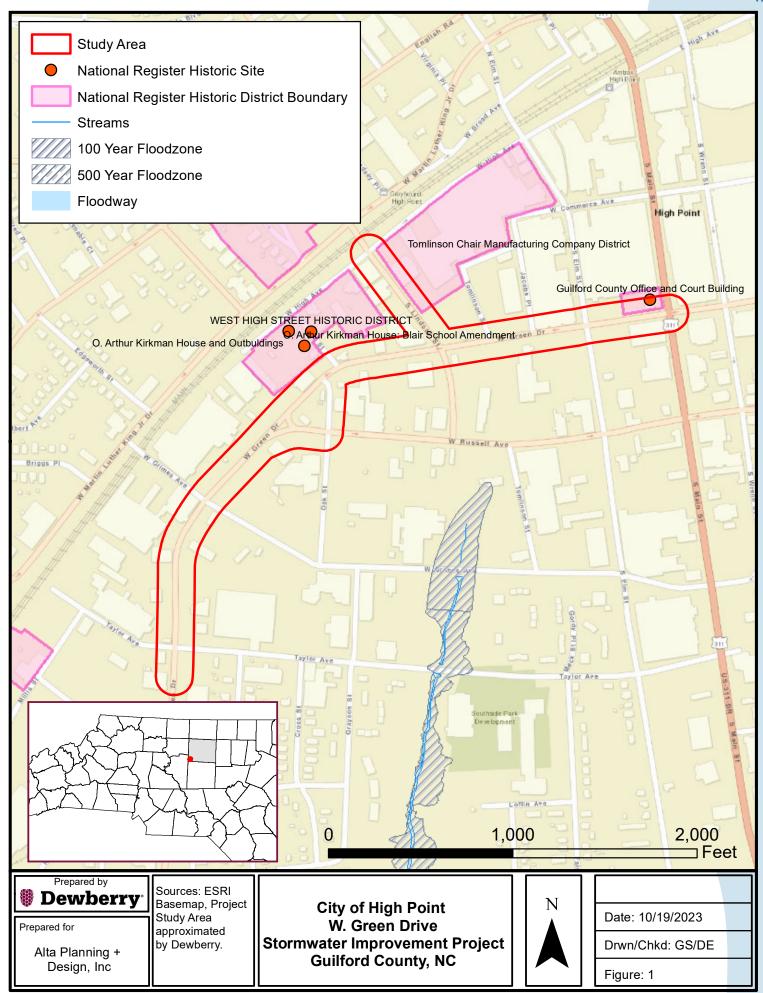
There are no floodplains within the project study area; however, there is a 100-year floodplain in the surrounding area (see Figure 1). That floodplain is the headwater of Richland Creek, which this project will benefit by improving the quality and reducing quantity of stormwater runoff. The ArcGIS floodplain shapefile was found on the City of High Point ArcGIS website.

WETLANDS & STREAMS

No National Wetland Inventory (NWI) wetlands were found within or around the study area. No streams were found within the study area; however, one stream was found outside the project boundary in the vicinity as shown on Figure 1. Again, this stream is the headwaters of Richland Creek, which the project will benefit.

Table 2: Historic Architectural Resources

Site Name / Number	Description	Туре	Detail	National Register Status
GF2986	West High Street Historic District	District	1879-1922 Residential Area	NR
GF0173	Tomlinson Chair Manufacturing Company	District	1902-1927 Brick Factory Buildings	NR
GF0199	Guilford County Office and Court Building	Individual Building	1937 Art Moderne 2- Story Brick Building	NR
GF0200	O. Arthur Kirkman House – Blair School Amendment	Individual Building within West High Street Historic District	1879 1-Story Frame School Building	NR
GF0179	O. Arthur Kirkman House and Outbuildings	Individual Building within West High Street Historic District	1913 Tudor/Craftsman 2- Story Brick House	NR



THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) identifies three federally protected species that may occur within the project study area as of October 6, 2023. These include the Tricolored Bat, Schweinitz's Sunflower, and Small Whorled Pogonia. As a densely urbanized and formerly industrialized section of the city, there are no critical habitats in the project study area.

CULTURAL RESOURCES

Cultural resources include archeological sites and historic structures or districts.

ARCHEOLOGICAL SITES

Dewberry staff did not conduct a review of archeological sites as this information is not available online.

HISTORIC ARCHITECTURAL RESOURCES

Dewberry reviewed the North Carolina Historic Preservation Office (NCHPO) Online GIS database HPOWEB on October 3, 2023 to identify historic sites and districts located within or adjacent to the study area. Four National Register historic sites were found adjacent to the study area (one district and three individual buildings) and are shown on Figure 1. Additional detail on each resource is provided in Table 2.

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Should federal funds or a permit be required for the project, coordination with the State Historic Preservation Office (SHPO) will be required. It is recommended that the project be designed to avoid any impacts to historic properties within the study area.

Physical Resources

The study area is located in the Piedmont physiographic province of North Carolina. Land use in the study area is urban and consists of paved roadways and buildings entirely within the City of High Point.

Topography

Topography in the study area is generally flat.

Regulatory Considerations

CLEAN WATER ACT / WATERS OF THE U.S.

Water resources in the project study area are located within the Cape Fear River Basin [U.S. Geological Survey (USGS) Hydrologic Unit 03030003]. No streams or wetlands were identified within the study area.

RANDLEMAN LAKE BUFFER RULES

The project is located in the Randleman Lake Buffer Area. The rule applies to activities conducted within a 50 feet wide riparian buffer directly adjacent to surface waters in the Randleman Lake watershed (intermittent and perennial streams, lakes, reservoirs and ponds). The project is not located within the 50-foot riparian buffer of any mapped surface waters. However, as previously stated, the goal of the project is better manage stormwater runoff into the headwaters of the Richland Creek, which are located over 50 feet from the project area.

PROTECTED SPECIES- ENDANGERED SPECIES ACT

Species with the federal classifications of Endangered (E) or Threatened (T) are protected under the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). The USFWS IPaC identifies three species that are federally protected that may occur within the project study area as of October 2023 (Table 3). There are no critical habitats in the study area.

Mammals

Tricolored Bat

The tricolored bat's range includes the eastern and central United States, southern Canada, Mexico, and Central America. The

Table 3: Endangered, Threatened, or Proposed Species within the Study Area

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
Perimyotis subflavus	Tricolored Bat	PE	No	Not Required
Helianthus schweinitzii	Schweinitz's Sunflower	Е	No	No Effect
Isotria medeoloide	Small Whorled Pogonia	T	No	No Effect

E-Endangered; PE-Proposed Endangered; T-Threatened.

tricolored bat winters in caves and mines; however, in the southern United States they will roost in culverts during the winter. In spring, summer, and fall the tricolored bats can be found in forested areas where they will roost. The tricolored bat is currently Proposed for listing under the Endangered Species Act with an expected listing date in late 2023.

<u>Habitat in Study Area:</u> A review of the aerial photography indicates there is no habitat in the study area.

According to the NCNHP there are no known occurrences of the tricolored bat within 1.0 mile of the study area. The tricolored bat is currently only proposed for listing under the endangered species act, therefore a biological conclusion is not currently required.

Flowering Plants

Schweinitz's Sunflower

USFWS Optimal Survey Window: Late

August – October
Schweinitz's sunflower is found along
roadside rights-of-way, maintained power
lines and other utility rights-of-way, edges
of thickets and old pastures, clearings and
edges of upland oak-pine-hickory woods
and Piedmont longleaf pine forests, and
other sunny or semi-sunny habitats where
disturbances (e.g., mowing, clearing,
grazing, blow downs, storms, frequent fire)
help create open or partially open areas for
sunlight.

<u>Habitat in Study Area:</u> A review of the aerial photography indicates the roadsides are too manicured to provide habitat in the study area.

BIOLOGICAL CONCLUSION: No Effect According to the NCNHP there are no known occurrences of Schweinitz's Sunflower within the 1.0 mile of the study area.

Small Whorled Pogonia

USFWS Optimal Survey Window: Mid-May - Early July

Small whorled pogonia is a perennial orchid typically found in open, dry deciduous woods and is often associated with white pine and rhododendron.

<u>Habitat in Study Area:</u> A review of the aerial photography indicates the roadsides are too manicured to provide habitat in the study area.

BIOLOGICAL CONCLUSION: No Effect According to the NCNHP there are no known occurrences of Small whorled Pogonia within the 1.0 mile of the study area.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts, nests, or eggs. The Act provides criminal

penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

Habitat for the bald eagle primarily consists of mature forests in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water.

There are no water bodies within 1.0 mile of the project study area large enough to be considered a potential feeding source.

According to the NC Natural Heritage Program, there are no documented cases of eagles within the 1.0 mile of the study area.

Sources

City of High Point website: Spatial Delivery! (highpointnc.gov) Site accessed October 3, 2023

National Conference of State Historic Preservation Officers website: https:// ncshpo.org/resources/section-106/ Site accessed October 9, 2023

NC Department of Natural & Cultural Resources website: https://nc.maps.arcgis.com/apps/webappviewer/index.

Subm	ittal Checklist for E		g Reports/Enviror st updated: December 2022)	nmental Informat	ion Docum	ents	
	accompany the initial si					ents. If your	
submittal does not contain this checklist, the Project Manager will not start review until it is received. A. Submittal (Project Engineer may request a hard copy if needed for ease of review)							
•	n: Email DWI Project	•		,	Project Engine	er	
Tito are of swellingsie	<u></u>	ev Engineer [serial and an and an	rejeev Engme	-	
B. Contact Infor	mation						
	City of High Point, No	th Carolina					
	on (Elected Official or Ai		presentative) different fi	rom the application?	Yes	□No	
First Name	Last Name	Suffix	Position				
				Authorized Representative			
Mailing	Address 1	Mai	ling Address 2	City State		Zip Code	
	,		8	v			
E-Mail Address				Phone Number Extension (if applicabl		n (if applicable)	
Consultant Inform	ation						
	on different from the app	lication?	Yes No				
	n Name		First Name	Last Name		Suffix	
Alta Plannin	g + Design, Inc.	Spencer		Finch		PE	
Mailin	Mailing Address 1		ling Address 2	City	State	Zip Code	
111 E. Chapel	Hill Street, Ste. 200		_	Durham	NC	27701	
	E-Mail Addı	ress		Phone Number Extension (if appl		n (if applicable)	
	spencerfinch@Alta	aGO.com		984.226.0500			
Environmental Inf	formation Document Co	ntact Inforn	nation (SRF and CDBG	funded projects only)		
Did a separate firm	prepare the Environme	ntal Informa	tion Document? 🛛 Ye	es 🗌 No			
If Yes, complete the	e information below. If N	lo, then cont	inue to Part C (Project	Information).			
Firr	Firm Name		First Name	Last Name		Suffix	
	wberry		Elizabeth	Smyre		PE	
	g Address 1	Mai	ling Address 2	City State		Zip Code	
2610 Wyclif	f Road, Suite 410			S		27607	
	E-Mail Addı					n (if applicable)	
	esmyre@dewber	ry.com		919.424.3771			
C. Project Inform	nation						
DWI Project No.(s)	Green Drive Proposed Gr): rinking Water projects):		ater Infrastructure				
Project Type							
, ti	y in terms of project type	2.					
11.	J. V. VI		☐ Drinkin ☐ Wastew ☑ Stormw	ater			

D. Environmental Information (for SRF and CDBG funded projects only)

Check the box for the appropriate final information document required for the project and based upon the activities listed in Appendix A of the guidance or any discussion with Division staff. Note: Under the CDBG-I program, the Responsible Entity will be in charge of the environmental review process. The Consultant should check which environmental document the Responsible Entity is preparing.						
Final Environmental Document						
☐ Certificate of Exemption (CDBG-I only) ☐ Categorical Exclusion Subject to §58.5 (C☐ Categorical Exclusion (SRF only)	CDBG-I only)	☐ Categorical Exclusion Not Subject to §58.5 ☐ Finding of No Significant Impact ☐ Record of Decision	5 (CDBG-I only)			
Check the box(es) for the river basin(s) where	the project is found.	This information is used for programmatic rep	orting purposes.			
☐ Broad ☐ Cape Fear ☐ Catawba ☐ Chowan ☐ French Broad ☐ Hiwassee ☐ Little Tennessee ☐ Lumber ☐ Neuse		New Pasquotank Roanoke Savannah Tar-Pamlico Watauga White Oak Yadkin				
E. Funding Information						
Estimated Project Cost:						
Funding Source(s): State Project Reserve/AR	RPA					
Funding Secured (amount should equal total	l of the funding sour	ces listed below):				
Check the box(es) for each secured source of funding, including those outside of the Division. Place the amount(s) in the appropriate column.						
☐ Total amount financed by DWI	\$ \$ \$ \$ \$ \$	 North Carolina Rural Center USDA Grant/Loan Bonds Local Funds Bank Loans Other, Specify: 	\$ \$ \$ \$ \$ \$			
Plan of action if secured funding is less than t	he project cost:					
F. Signature						
This submittal checklist has been completed and is, to the best of my knowledge, accurate.						
Signature:						
Date:						

Form ER/EID-SUBMITTAL-04/23 Page 2

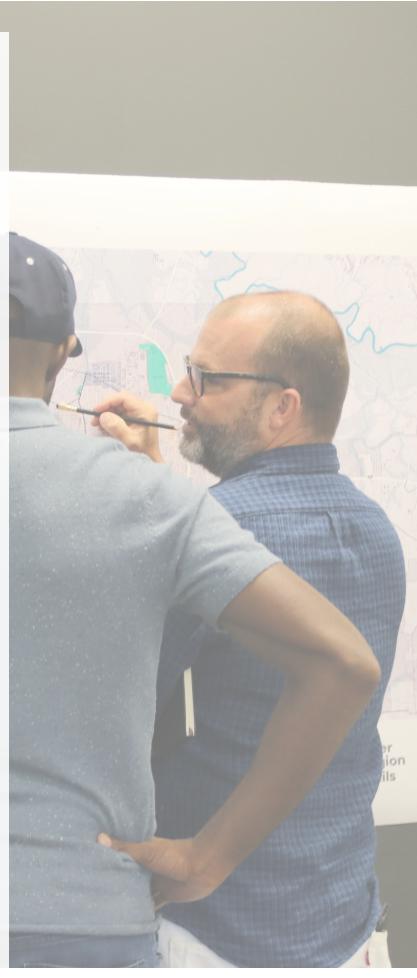
22 Section 9: Public Participation

Public Outreach Summary

The Southwest Renewal Foundation of High Point (SWRF), a grass roots, community development 501 C3 nonprofit, has worked in inner-city southwest High Point since 2011 and has partnered for a number of years with PTRC, the City of High Point, and Guilford County to fund various planning processes and projects related to improvements of water quality for Richland Creek, community engagement, and urban greenway development in southwest High Point (QCT 143).

In 2015, SWRF was awarded a \$69,500 NC Clean Water Management Trust Fund grant (now known as NC Land and Water Fund), with \$90,300 in-kind support, partnering with the PTRC and the City of High Point to develop a plan to better identify opportunities for green infrastructure in this disadvantaged, inner-city, water-sensitive district. This report, Southwest High Point Green Infrastructure Plan (2019), focused on the low-income, marginalized community and neighborhoods in the Southwest census block. This plan coincided with the proposed urban 4-mile Southwest High Point Greenway that, when built, would further buffer Richland Creek to help improve water quality.

Local stakeholder input came from eight community engagement events and stakeholder meetings; a combination of fieldwork and a GIS mapping inventory of existing conditions, and identification of the best opportunities to implement green infrastructure. Many of these identified projects, including the potential for USEPA "green street" development for stormwater management, were located in this W Green Drive corridor. In 2020, the NCLW Fund awarded the SWRF a second \$398,087 grant for land acquisitions along Richland Creek and the future riparian urban greenway to create buffers to help clean the water in the creek. NCLW also created a short 3-minute video to highlight this public outreach work (see www.highpointsouthwest.org). In addition, SWRF sponsored public presentations by the PTRC water resources manager, the last one in 2022.



In 2019, PTRC was awarded 205j NC Division of Environmental Quality 205j Clean Water Act pass-through funding to develop a watershed action plan for the Richland Creek in High Point, Guilford County. The majority of the watershed lies within the southwest census tract. An interactive story map was created housing water quality data, general watershed information, identified project needs and associated benefits and costs, opportunities for community education and engagement, as well as riparian corridor health. The map can be accessed here: Richland Creek Watershed Action Plan Story Map. A corresponding written document was created, 2021 Richland Creek Companion Guide, which gives an overview of the topics listed on the story map. The final 2021 Richland Creek Watershed Action Plan, an approved USEPA 9-element watershed plan, was developed in consultation with local stakeholders to guide the water quality improvements and restoration efforts. The purpose of the plan is to describe methods that address the bacterial contamination for Richland Creek whereby the Total Maximum Daily Load is aiming for 82% reduction.

Four stakeholder and several public engagement sessions were held that included representatives from SWRF, the City of High Point departments (parks and recreation, public services, public works, Keep High Point Beautiful, stormwater), Guilford County stormwater, the Soil and Water Conservation District, Piedmont Triad Regional Water Authority, NCDEQ Division of Water Resources, NC Wildlife Resources Commission and citizen engagement at various public events.

Since the culmination of the reports, PTRC has partnered with SWRF on several other projects and proposals seeking funding that can be used to implement the proposed green infrastructure and watershed restoration projects that will improve the water quality, reduce non-point source pollution, increase and enhance education and engagement events, especially in having opportunities to work with students and community members, and to increase opportunities to work with the City of High Point and area businesses. This project is a culmination of these efforts, the first step to actually implement green stormwater management infrastructure in the neighborhood.





REQUEST FOR QUALIFICATIONS #29-022924

Design Services for W. Green Drive Stormwater Infrastructure

City of High Point

FEBRUARY 29, 2024

PREPARED BY ALTA PLANNING + DESIGN, INC. IN ASSOCIATION WITH DEWBERRY ENGINEERS, INC. DRMP, INC. TELICS TERRACON





Candy Harmon, Purchasing Manager

City of High Point candy.harmon@highpointnc.gov FEBRUARY 29, 2024

RE: Request For Qualifications Design Services for W. Green Drive Stormwater Infrastructure Systems

Dear Ms. Harmon and Members of the Selection Committee.

We share the City of High Point's (the City's) enthusiasm with the opportunities that the NCDEQ LASII grant brings to the City, and understand the challenges yet to come that will need to be addressed to remake W. Green Drive and make the project a success. We are proud of our prior collaboration with you to secure this grant (and the USDOT RAISE grant prior to it), as well as preparing the Engineering Report/Environmental Information Document, and have assembled a team and a strategy that will help move the project forward to implementation and to a vision of a safer, more connected, and greener southwest High Point.

The Alta Planning + Design, Inc. (Alta) team's local knowledge, relationships, and expertise will deliver a successful outcome, navigating the grant requirements, and balancing stakeholder and community feedback. Our engineering team worked to gauge the feasibility of green infrastructure and develop the conceptual design for the grant application, which led to this project. Our team has developed many projects of comparable scale and character, including the High Point on the Rise design funded by the RAISE grant, the Raleigh, NC Gorman St connector, the Holly Springs, NC Utley Creek Greenway; and award-winning complete-street/GSI projects such as Bartram's Mile and Parkside Edge in Philadelphia, PA, among many others.

With our W. Green Drive ER-EID partners **Dewberry**, we have invited **DRMP**, **TELICS**, and **Terracon** to join the team, bringing their extensive experience in SUE and utilities, Right of Way, and geotechnical engineering. Through our thoughtful teaming and approach, I hope you will see our team's commitment toward ensuring this critically important project is a success for the City.

Alta's **Spencer Finch, PE, LEED AP,** will serve as Principal-in-Charge for the project, having led the prior phases of the project, as well as bringing extensive experience in combining transportation and green stormwater infrastructure (GSI) projects. Tom Natwick, PE will serve as Project Manager, bringing his leadership and expertise from years of roadway and greenway engineering. Dewberry's Andrea Hayden, PE, LEED-AP will collaborate with Alta on the stormwater design and Beth Smyre, PE will continue to lead the environmental permitting steps. DRMP's Roadway Group Leader, Lucas Helms, PE, and his team will provide supplemental survey, SUE, utility relocation, traffic, and additional roadway design capacity to the team.

The Alta team is excited and prepared to deliver the design services based on the ER-EID that has laid the groundwork to design and rebuild Green Street. We cannot wait to see the project progress through design to completion and a successful ribbon cutting. This is a priority project for our team, and we have the capacity to begin work with you immediately.

Please contact Project Manager Tom Natwick, PE at tomnatwick@altago.com or myself at (984) 226-0500 or spencerfinch@altago.com if you have any questions or comments regarding this proposal. In summation, this cover letter addresses the requirements of the Request for Qualifications and explains why the Alta team is the right choice to support the City of High Point.

Matt Hays

Sincerely,

Spencer Finch, Principal-in-Charge Alta Planning + Design

dyn Er

Alta Planning + Design

Matt Hayes, Vice President | Authorized to bind the firm

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Appendix: Forms

a)

Executive Summary

Executive Summary

Alta has assembled a team that builds on fruitful prior efforts that identified the current issues on the corridor and secured the NCEDQ LASII funds for the project. To achieve the vision of a safer, more connected, and greener W. Green Drive, we developed a strategy for project design that includes:

- Building on the results of the feasibility analysis and maximizing green stormwater infrastructure (GSI) system benefits
- Serving as an extension of City of High Point staff, and closely coordinating on City priorities
- Coordinating with adjacent projects such as the Jacobs Place sewer project and RAISE-funded Heritage Greenway designs effort (which is being also completed by Alta); and with stakeholders
- Using a flexible and thorough Scope of Work that combines transportation and GSI elements seamlessly; and that will meet the LASII grant's project delivery deadline
- Selecting a team with deep and through experience in this type of project:
 - » Alta's Spencer Finch, PE, LEED-AP as Principal-in-Charge and Tom Natwick, PE as Project Manager, continuing their roles in prior phases of the project, and leading overall project management, GSI refinement, roadway design, and final plan assembly.
 - » Dewberry's Andrea Hayden, PE, LEED-AP and Beth Smyre, PE, continuing the firm's support for High Point water and sewer projects, and leading the stormwater design/permitting and environmental clearances, respectively.
 - » To round out the team, DRMP provides supplemental survey, SUE, utilities, traffic, and additional design capacity; Terracon provides geotechnical services; and Telics provides right-of-way coordination.
- Making sure we communicate well and often; and we successfully use our expertise and QAQC system to deliver a successful, innovative project to the City of High Point.

We invite you to learn more about our Project Approach and Scope in the following pages.

Firm Profiles

Alta is a sustainable transportation and engineering consulting firm dedicated to creating active, healthy communities through planning, landscape architecture, engineering, and education/encouragement programs.

The Alta team takes a people-first approach to help communities and agencies meet their placemaking and climate change mitigation goals. Active transportation and streetscape redesigns open up many opportunities for sustainable design approaches that maximize the potential for stormwater capture, reduce impacts to watersheds and sewersheds, and have other benefits, such as creative placemaking and reducing urban heat island effects. Our designers, planners, and engineers actively consider ways to incorporate strategies for sustainability and resiliency into all our project work.

Dewberry is a leading, market-facing firm with a proven history of providing professional services to a wide variety of public and private sector clients. Dewberry's diverse capabilities include site/civil design, environmental planning and permitting, water/ wastewater engineering, transportation planning and engineering, utility coordination, GIS, surveying, subsurface utility engineering, planning, and SCADA. Dewberry's over 270-person staff in North Carolina works collaboratively with clients including municipalities, government agencies, the military community, educational institutions, developers, and corporations.

DRMP provides a full range of transportation and survey services. The proposed team has experience with NCDOT and other state DOTs and includes staff in our Raleigh, Charlotte, and Cary offices. The DRMP team has worked on projects from minor bridge replacements to controversial new-location roadways and is ready to deliver this project.

Terracon's geotechnical engineers have an excellent understanding of the challenging properties of the soils as a result of 30 years of experience working in North Carolina. They analyze the information, develop site preparation options, foundations, and pavements, and consult with the client to create excellent designs faster than ever. They own five drill rigs in North Carolina supplemented by additional rigs in nearby states, which means they control the schedule instead of waiting on a sub-contracted driller.

TELICS Right of Way Division is a team of qualified personnel who are dedicated exclusively to Right of Way projects. TELICS has extensive experience with Right of Way project management and acquisitions for various projects that include transportation, bridges, airports, sidewalks, greenways, water and sewer, gas pipelines, crosscountry fiber routes, carrier sites, developments, and strip easements.

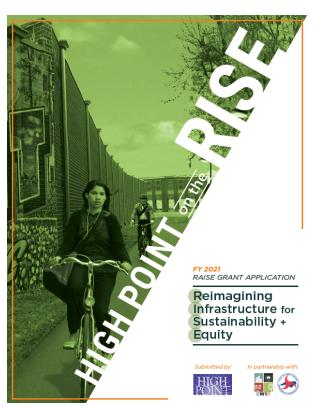
Statement of Qualifications



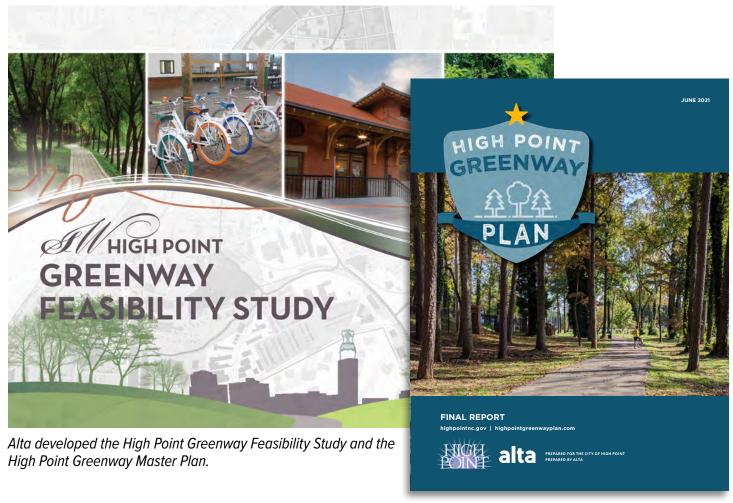
Alta and the City of High Point

Alta and the City of High Point have been partners on a variety of projects for the last seven years, from traffic engineering to greenway planning. The Alta team is familiar with the City's goals and values, and looks forward to future partnership opportunities with the City. Some of Alta's past projects with the City of High Point include:

- W. Green Drive Engineering Report/Environmental Information
 Document (with Dewberry), as well as the neighborhood-wide GSI
 analysis and conceptual designs, and the LASII grant application
 that is funding this project
- Elm Street and Heritage Greenway Design
- High Point MPO Regional Bike Plan
- High Point Greenway Feasibility Study and Master Plan
- High Point on the RISE RAISE Grant Application
- High Point FEMA-BRIC Grant Application
- High Point Pedestrian Plan



Alta worked closely with the City to submit a RAISE grant application for the High Point RISE project, which secured \$19.8 million for the Elm Street and Heritage Greenway project.



Alta Experience With DBE/HUB Firms

Alta has utilized DBE/HUB firms on many of our past projects, and are committed to advancing the City's goals in regards to employing DBE/HUB firms. Below is just a small selection of work Alta has performed in North Carolina with the help of DBE/Hub partners and the percentage of DBE/HUB participation for each project:

HIGH POINT PROJECTS

- High Point Greenway Master Plan, NC: Public Participation Partners, 11%
- High Point MPO Regional Bike Plan, NC: Wallace Consulting and Training, 4%

NORTH CAROLINA PROJECTS

- Utley Creek Greenway, Holly Springs, NC: Three Oaks Engineering, 18%
- Rutherford Safe Routes to Trails, NC: Three Oaks Engineering, 13%
- Yadkin Valley Regional Bike Plan, NC: Wallace Consulting and Training, 5%
- Durham Trails Implementation Plan, NC: Three Oaks Engineering, 3%



We are committed to supporting High Point's DBE/HUB goals, and would be glad to engage with the City to adjust our scope and approach, should you so desire.

Additional Relevant Experience

Elm Street and Heritage Greenway Design

HIGH POINT. NC | 2020-ONGOING

Alta worked for years with the City of High Point, completing the High Point Pedestrian Plan, the High Point Greenway Plan, and the High Point Regional Bicycle Plan. These efforts culminated in 2021, when Alta led the USDOT RAISE grant application that secured \$19.8 million for the design and construction of the Elm Street Complete Street and Heritage Greenway project. We are currently engaged in the 30% Design Plan phase of the project, which will prepare 30% design plans for two alternative greenway alignments (dependent on railroad acquisition) and for the makeover of Elm Street into a safer, greener, more inviting corridor for pedestrians and bicyclists, connecting downtown High Point to the Amtrak Station and the Truist Stadium, among other destinations.

CLIENT

City of High Point

REFERENCE

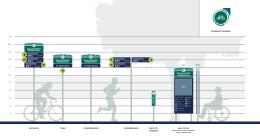
Andrew Edmonds Transportation Planning Administrator (336) 883-3235 andrew.edmonds@highpointnc.gov

TEAM MEMBERS INVOLVED

Spencer Finch, PE, LEED AP | Principal-in-Charge Mike Repsch, PE | QAQC Doug Moore, PE | Engineer







High Point Grant Management and Support Services

HIGH POINT, NC | 2021-2023

Alta has been assisting the City of High Point for several years in its planning efforts (including the High Point Pedestrian Plan, High Point Greenway Plan, and High Point Regional Bicycle Plan) and in the strategic selection, pursuit, and successful securing of federal grants. Alta led the development of the successful 2021 USDOT RAISE grant application ("High Point on the Rise"). Funded through NCDOT, Alta led the full team of City staff, City management, and NCDOT through the process, designed the application, developed the content, assisted the City with cost estimates, and performed a benefit-cost analysis. Alta also led the preliminary analysis development of the concepts for green stormwater infrastructure on W. Green Drive, and developed the NCDEQ LASII grant application, the City's first application towards this project. The project will complement High Point on the Rise, helping transform the main arterial in southwest High Point into a green stormwater management network asset, cleaning up the headwaters of Richland Creek, and helping revitalize the neighborhood into a green business incubator.

CLIENT

NCDOT, City of High Point, Piedmont Triad Regional Council, Southwest Renewal Foundation

REFERENCE

Ryan Brumfield Director | NCDOT Integrated Mobility Division (919) 707-2601 rmbrumfield@ncdot.gov

TEAM MEMBERS INVOLVED

Spencer Finch, PE, LEED AP | Project Manager Tom Natwick, PE | Project Engineer Richard Virgo, PE, RSP | GIS Services

Utley Creek Greenway Phase 2

HOLLY SPRINGS, NC | 2020-2021

Alta led the design of the second phase of the Utley Creek Greenway in Holly Springs. The greenway will connect the Holly Glen neighborhood to the first phase of the greenway. The project consisted of preparing the greenway design plans, survey, geotechnical borings, drainage design, structural design for six boardwalk stream crossings, and permitting for approximately one mile of a 10-foot-wide asphalt trail.

CLIENT

Town of Holly Springs

REFERENCE

Matt Beard, AICP | Park Planner | Town of Holly Springs | (919) 567-4018 matt.beard@ hollyspringsnc.us

TEAM MEMBERS INVOLVED

Spencer Finch, PE, LEED AP | Principal-in-Charge Mike Repsch, PE | Project Manager

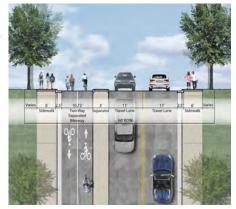
Gorman Street Separated Bike Lanes

RALEIGH. NC | 2016-2021

Alta designed the Gorman Street Separated Bike Lanes, the first separated bikeway in the Triangle and one of the first in the state. The project created a 0.3-mile-long, on-street bikeway connection between North Carolina State University and Meredith College. The separated bike lanes close a major gap in the Raleigh greenway and bikeway network. Once complete, this project will provide a high-level bicycle connection which will ultimately

allow downtown residents access to Umstead State Park, the Neuse River Greenway, and the American Tobacco Trail through a network of on-road and offroad bicycle facilities.

The final layout of the project included a concrete median-separated, separated bikeway, associated signal work, drainage improvements, traffic control, sidewalk reconstruction, and pavement marking. The ribbon-cutting was in January 2022.



CLIENT

City of Raleigh

REFERENCE

Chad Cantrell City of Raleigh (919) 996-4173 chad.cantrell@raleighnc. gov

TEAM MEMBERS INVOLVED

Mike Repsch, PE | Project Manager



Confidential Lab Improvements and Parking Deck

DURHAM, NC | 2022

As a sub-consultant to Integrated Design, **Dewberry** provided landscape architecture, stormwater drainage, green stormwater infrastructure, site/civil, and electrical engineering services to renovate a campus in Durham County. The 101-acre campus was previously occupied by a pharmaceutical company featuring state-of-the-art office and laboratory spaces that will be available for individual lease. Through thoughtful consideration of pedestrian connections, courtyard design, and entry plaza and park spaces, Dewberry strives to create spaces that connect the campus and provide employees with natural spaces to recharge. The drainage design and stormwater management utilized features that were enhanced by landscaping, like bioretention and Filterra structures for water quality. By modernizing the areas throughout the original campus, the intent is to attract new organizations to the County and appeal to the talent they seek to recruit from nearby universities.

CLIENT

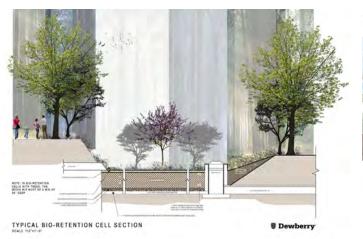
Integrated Design (Prime)

REFERENCE

David Kirk, AIA, DBIA, LEED AP, RID Project Manager (919) 832-6658 dbk10000@id-aep.com

TEAM MEMBERS INVOLVED

David Ross, PE | Funding Administration Support







Chapel Hill Transit Bus Stop Improvements

CHAPEL HILL, NC | 2023-ONGOING

DRMP was selected by the Town of Chapel Hill to provide passenger amenity improvements for over 100 existing bus stops throughout the Town, including several sites on the University of North Carolina at Chapel Hill campus. Amenities include updating sites to new standards and assessing each site for ADA compliance. Site improvements include new bus shelter pads, sidewalks, handicap ramps, bus shelters, benches, trash receptacles,

and signage. Responsibilities include surveying, site research, engineering, design, NCDOT encroachment agreements, easement plats (as required), contract documents, advertising and bidding, and construction administration. Over half the sites have been constructed as of the end of 2023. The remaining sites are still in the design phase or ROW acquisition phase.



CLIENT

Town of Chapel Hill

REFERENCE

Katy Fontaine (919) 969-4957 kfontaine@ townofchapelhill.org

TEAM MEMBERS INVOLVED

Lucas Helms, PE | Project Manager Steven Bailey, PLS | SUE



Project Understanding

The North Carolina Department of Environmental Quality's (NC DEQ's) Division of Water Infrastructure recently created the Local Assistance for Stormwater Infrastructure Investments fund (LASII), administering approximately \$100.5 million for stormwater projects in the state, allocated from the federal American Rescue Plan Act (ARPA) State Fiscal Recovery Fund. In September 2022, the City of High Point, the Southwest Renewal Foundation of High Point (SWRF-HP), and the Piedmont Triad Regional Council (PTRC) collaborated with Alta to prepare a grant application to the LASII program to help secure stormwater improvement funds for a ¾-mile section of West Green Drive in High Point, NC. The grant was awarded in April 2023. In 2023, Alta helped the City along the NCDEQ's Environmental Review/ Environmental impact Documentation (ER/EID) process, to tee the project up to enter the design and engineering process. We have now built on our existing team to address this next phase of the project.

PROJECT LOCATION

W. Green Drive is a major arterial on the west side of downtown High Point, which is a focus for City and SRF redevelopment efforts. This arterial connects the active downtown with areas of industrial and commercial vacancy that are undergoing redevelopment and efforts to address the area's issues of flooding and outdated infrastructure.



A man and a child ride bicycles through heavy traffic and unmarked facilities near the project location in High Point.

PROJECT NEED AND BENEFITS

Improving the W. Green Drive corridor will help transform the main arterial in southwest High Point into a green stormwater management network asset, cleaning up the headwaters of Richland Creek, and helping revitalize the neighborhood into a green business incubator. The project will reduce stormwater and pollutant loads into aging sewer and help mitigate flooding in this part of the City. Ultimately, the project will help create a modern, inner-city green manufacturing/business park in southwest High Point where people can live, work and play (a strategy and City priority first recommended by the 2007 High Point Core City Master Plan that was adopted by City Council).

Making W. Green Drive a green street will also result in a long list of side-benefits:

- Improve water quality on Richland Creek (a source of drinking water for thousands in High Point and beyond)
- Improve the public realm + quality of life
- · Foster economic development
- · Reduce the urban heat island effect
- Attract business to create jobs
- Promote public health by encouraging walking and bicycling
- Enhance the context of the SW Heritage Greenway; and leverage the \$19.8M USDOT RAISE grant secured by the City
- Expand equity in a disadvantaged Qualified Census Tract (QCT 143)



PROJECT TECHNICAL STRATEGY

Green Stormwater Infrastructure (GSI) consists of a toolbox of practices and techniques that replace traditional "grey infrastructure" such as improperly sized stormwater inlets and oversized underground stormwater sewers that might not address changing levels of stormwater impacts and provide no tangible benefit to the livability of the streets and neighborhoods above. GSI instead utilizes rain gardens, bioswales, tree protection, and permeable pavement (among other greener strategies) that reproduce a more natural drainage pattern and keep stormwater onsite instead of letting it be rapidly conveyed away (which used to be a goal of old-school grey stormwater systems) and possibly overwhelm other stormwater systems and communities further downstream. GSI practices protect groundwater supplies and stream health, create greener, more livable streets and neighborhoods, and can cost much less over time than managing stormwater with large detention basins and large underground pipes.

Prior to the grant application, Alta completed a feasibility analysis for the use of GSI along W. Green Street. The analysis included a preliminary engineering review to evaluate the feasibility of installing GSI stormwater control measures (SCMs) on the street, to identify potential locations and types of SCM to be used, and thus collect sufficient data to perform a preliminary cost estimate for the project. In evaluating the potential locations and types of GSI SCMs, the focus was on maximizing drainage area capture and greening benefits for the corridor, by using strategies such as:

- · Locating GSI where maximum volume capture can occur
- Focusing on areas historically impacted by flooding
- Locating GSI at the top of drainage sheds, so that runoff does not accumulate closer to streams
- Consolidating the number of GSI SM systems where possible
- Evaluating opportunities for trees and other vegetation
- Considering multiple system location and SCM type alternatives

The study also considered the potential ways that the proposed SCM layouts could benefit other current city projects, including the Jacobs Place project, the High Point Heritage Greenway project, and other related intiatives.

PROJECT APPROACH

Alta shares High Point's enthusiasm and commitment to remaking West Green Drive. We have assembled a team that builds on fruitful prior efforts that identified the current issues on the corridor and secured the funds for moving the project forward. We have now developed a strategy to help move the project to implementation and to achieving the vision of a safer, more connected, greener street.

Alta's team is led by **Spencer Finch, PE, LEED-AP,** serving as Principal-in-Charge for this next phase, and Project Manager **Tom Natwick, PE,** who together led the prior stages of the project. On this phase, they will lead the overall project management tasks, project team management, stormwater concept refinements, stakeholder and public outreach, roadway design plans, and final assembly and submission of plans to regulatory agencies. They will be supported by the Alta design team and two key teaming partners.

Dewberry will continue its more recent involvement with the project, by developing the stormwater plansheets for the project and completing additional environmental screenings and documentations that might be required — specifically to meet NCDOT and NCDEQ requirements. Their team will be led by **Andrea Hayden**, **PE**, **LEED-AP** on the design tasks and **Beth Smyre**, **PE** (who assisted in the ER/EID) on the environmental tasks.

A second partner, DRMP¹, will assist the team by performing supplemental surveys, leading the SUE and utility coordination, and providing additional roadway design services when needed. The DRMP team will be led by Project Manager Lucas Helms, PE, with SUE/Utility tasks covered by Steven Bailey, PLS and surveys by the DRMP survey team, and traffic engineering by Andrew Eagle, PE, PTOE.

Two other partners complete the team: Terracon will be responsible for the geotechnical investigations and infiltration testing required for the project; and TELICS will be responsible for right-of-way, easements, appraisals, and acquisitions that might be required.

Alta and DRMP are sister firms, part of the Trilon Group family of engineering firms, and collaborate on projects often.

Project Scope

Alta will work collaboratively with the City and stakeholders to develop comprehensive, holistic transportation and stormwater solutions that are feasible, cost-effective, consensus-driven, and meet the project objectives.

Below is the scope we prepared to guide the design process:

TASK 1 - PROJECT MANAGEMENT (ALTA)

Project management can be simple and effective. It starts with clearly understanding **the City's goals** for the project — because of our recent collaboration in the project, we are in tune and will continue to communicate frequently with you to remain in sync with the City's goals.

A second factor is the ability to manage large teams, including multiple teaming partners. Alta has led and been part of countless such projects. We are relatively small, but nimble. We have both an IT infrastructure to rival larger firms and the processes in place to manage these teams. We use Deltek software to keep track of and balance workload, our project managers do 2-week and 2-month look-aheads to reserve staff time for upcoming tasks, and we then use dedicated project accountants and legal support staff to expedite contractual and accounting tasks. We have a long track record of both supporting and leading larger firms towards successful projects. In all our work, we focus on engaging with teaming partners and stakeholder to collaborate and reach a successful outcome – some of these our successes are listed in the Project Experience section of this document.

Finally, we communicate. We are known for the creativity in our public and stakeholder engagement efforts; but we also enjoy and make it a rule to communicate often with you. Our Project Manager Tom Natwick and PIC Spencer Finch will be in at least a weekly communication basis with you throughout the project; and we proactively manage issues, change, and project risks. When issues arise, we will bring them to you promptly, and will discuss the obstacles and potential solutions.

Deliverables: Kick-Off Meeting, Kick-Off meeting Minutes, Weekly touch-bases, Monthly project invoicing with project reports

TASK 2 – STAKEHOLDER AND PUBLIC OUTREACH (ALTA)

We understand that existing stakeholders such as the Southwest Renewal Foundation (SWRF) and the Piedmont Triad regional Council (PTRC), as well as other stakeholders, will want to remain involved in the concept refinement and final design processes. The City might also desire one or two public outreach sessions. The Alta team has extensive experience in performing varying levels of stakeholder and public involvement, ranging with closed-door agency sessions to standard public meetings, from design charrettes open to the public and to public pop-up or online events. Accordingly, we are including an allowance for a total of four meetings in our scope. We will prepare materials, attend, and present at these meetings; leaving the logistics of any on-site meetings as the City's responsibility.

Deliverables: Prepare presentation materials, attend and present at up to four meetings (virtual or in person), prepare meeting minutes.



TASK 3 – GRANT MANAGEMENT SUPPORT (ALTA AND DEWBERRY)

Alta and Dewberry both have long experience in supporting clients with grant applications and post-grant award reporting. Alta's Spencer Finch has helped secure over \$100 million in federal grants for clients in the past 3 years, and was also formerly a program manager for a \$23 million federal USDOT TIGER grant. Dewberry's David Ross has worked with communities in North Carolina and Virginia to secure state and federal funding for water and sewer systems, and helped manage reporting and contractor compliance during the construction phase. The Alta team can provide additional support to the City in managing LASII funds, and seeking additional funding if it becomes necessary.

Deliverable: Technical assistance.

DESIGN INITIATION

After the initial Kick-Off Meeting, the Alta team will start the design process with some pre-design activities, which include the start of the SUE and utility coordination process. These are described below:

TASK 4 - DATA COLLECTION (ALTA TEAM)

Existing data and additional data will be collected to serve future tasks. No field data collection is included in this scope.



TASK 5 - SUPPLEMENTAL SURVEY (DRMP)

Some survey files are already available to the design team from areas surveyed for the ongoing RAISE-funded Heritage Greenway project, and thus a completely new survey will not be required. However, significant amounts of supplemental survey might still be required, to address streets adjoining W Green Drive that drain to the street or which are proposed to carry SCMs; to address potential acquisition parcels for larger basins; or to provide additional detail where needed.

TASK 6 – UTILITY COORDINATION AND POTHOLING (ALTA AND DRMP)

The Alta team will work with the City to develop a strategic and cost-effective approach to Subsurface Utility Engineering (SUE) investigations and potholing as part of the supplemental survey, aiming to meet a Quality Level A as needed in critical locations or for specific utility lines. If the design team is not able to eliminate impacts to existing utilities, the team will lead utility coordination and prepare utility relocation plans, specifications, and utility cost estimates. To allow for lead time, coordination and proper space proofing, utility relocation plans will be shown beginning with the 30% submittal.

TASK 7 – RIGHT OF WAY COORDINATION PROCESS (ALTA AND TELICS)

The Alta team will begin evaluation of right-of-way, easement, and acquisition needs for the project. We recommend engaging property owners and applicable regulators early in the design process to help facilitate the right-of-way acquisition and permit approval process. Telics will prepare a preliminary list of ROW items for review, including needed Temporary Construction Easements (TCEs), need for Permanent Acquisitions, and Permanent Easements. As the project progresses, and if need be, our team will prepare plats and descriptions, coordinate with the City for appraisals and negotiations, provide supporting documentations, obtain ROW authorizations, complete ROW certification, resulting in a NCDOT Encroachment Permit approval (see Task 24).

TASK 8 – ENVIRONMENTAL SCREENING AND PERMITTING (DEWBERRY)

Alta and Dewberry have already completed the NCDEQ ER/ EID submittal, with no significant findings to impede project progress. Once the limits of disturbance of the project are further developed, the team will identify what remaining next steps might be required in environmental screening and permitting. For example, if the project might impact any potential wetland areas along Richland Creek, wetland identifications, wetland delineations and jurisdictional determinations can be performed. Since a few cultural or historic resources are nearby, additional clearances might be required. If the project reaches a threshold along Richland Creek, then USACE and NCDWR will likely require a Section 404 permit and corresponding Section 401 Water Quality Certification (in that case, riparian buffer authorizations might also be required). Finally, additional environmental clearances might be required from NCDOT, since W. Green Drive is an NCDOT roadway. We anticipate that a Categorical Exclusion (CE) Level 1 would be granted.

Our team will prepare the purpose and need of the project, identify potential environmental, cultural, and historic impacts, permanent and temporary, and help prepare the regulatory documentation required. Once a submission is ready, we will review it with you and coordinate with the appropriate agency for the submission. We plan to identify any additional submittals early on in the process, so that if permits are needed, they can be completed without undue delay to the project.

Deliverables for Design Initiation Phase: Supplemental survey files, preliminary list of ROW items, list of additional permitting requirements, potential 404/401 permit submission, NCDOT CE submission.

BASEPLAN (30%) AND GEOTECH

At this stage, a project baseplan will be prepared based on the existing and supplemental survey files, and further supporting activities will take place, including a geotechnical and infiltration analysis for potential GSI SCM locations. The concept design and SCM placement locations will be refined using GIS, based on the feedback from the Design Initiation phase and the geotech/infiltration analysis. This concept refinement stage is important because it will provide the final number, layout, and location of SCMs; and total drainage area to be managed by the project. Alta will also begin engagement and communication with NCDOT to streamline the encroachment permit process.

TASK 9 – BASEPLAN PREPARATION (ALTA, DEWBERRY, AND DRMP)

The Alta team will prepare a baseplan for the project in CAD based on the survey data.

TASK 10 – GEOTECHNICAL AND INFILTRATION FIELD WORK AND REPORT (TERRACON)

A geotechnical and infiltration field exploration will be conducted. The pavement analysis portion of the exploration will include potential pavement sampling and testing, and will develop recommendations for pavement design and removal across each project area and proposed use.



Investigation methods will include mechanized soil,
Standard Penetration testing, and rock coring if needed.
Roadway subsurface investigations may also utilize hand
augers and Dynamic Cone Penetrometer (DCP) tests at
regular intervals. Infiltration testing will focus on using test
pits and the standard double-ring infiltrometer testing —
however, geoprobes and DCP can be used in areas where
space is limited or where there is active roadway traffic. It is
anticipated that infiltration testing will at a minimum need to
include one test on each block where an SCM is proposed,
and at least two at each larger basin location (if basins are
included at this stage of the project).

The Alta team will then provide:

- Roadway foundation recommendations including the location and depth of unsuitable materials encountered. The report will provide recommendations for expansive clays or other deleterious conditions, as well as subgrade preparation and pavement design recommendations.
- Infiltration potential recommendations, including alternatives for meeting required infiltration rates for GSI SCMs.

TASK 11 – CONCEPT REFINEMENT (ALTA)

Alta will update its existing GIS basefiles from earlier phases of the project with the additional information collected in Tasks 1-9, above. We will then host a review session with the City, and with stakeholders the City might wish to invite, to review the alternatives, pros, and cons of the remaining feasible SCM locations. Upon conclusion of the review session, we will prepare a session summary and circulate it to participants for final review. Upon incorporating comments, we will update the final number, layout, and location of SCMs; and confirm that the total drainage area to be managed by the project meets the original grant application goals.

TASK 12 – AGENCY COORDINATION (ALTA, DEWBERRY, AND DRMP)

The Alta team will attend one (virtual or in person) meeting with NCDOT to present the initial plans for the project, and start the Encroachment Permit process. One additional agency meeting is included in this task.

Deliverables of Baseplan (30%) Phase: Draft and final baseplan, Geotechnical and infiltration report, final GSI SCM location plan, agency coordination meeting minutes.

RIGHT OF WAY PLANS AND SUBSTANTIALLY COMPLETE DESIGN (60%)

At this stage, preliminary design drawings will be completed, including for the proposed roadway layout, proposed GSI SMPs, and associated improvements. Design calculations for the GSI system will be completed, including factors such as drainage area, storage volume, loading ratio, calculation of release rates for slow-release systems, and storm size managed. A significant part of the 60% phase will involve the completion of right-of-way plans, plats, and legals at the approval stage of the plans. A preliminary cost estimate will be prepared at this stage as well.

TASK 13 – CONCEPT MODELLING (ALTA AND DEWBERRY)

Additional concept refinement and modelling of stormwater and sewer connections might be needed at this stage.

TASK 14 - RIGHT OF WAY PLAN PREPARATION (ALTA)

The Alta team will prepare a ROW Plan for the project in CAD based on the baseplan. It will submit the plan to agency review. Upon receipt of comments, one round of revisions will be completed.

TASK 15 – DESIGN CALCULATIONS FOR GSI SYSTEM (ALTA AND DEWBERRY)

TASK 16 – PREPARATION OF PLATS (TELICS AND ALTA)

TASK 17 – PRELIMINARY COST ESTIMATE (ALTA, DEWBERRY, AND DRMP)

TASK 18 – AGENCY COORDINATION (ALTA, DEWBERRY, AND DRMP)

The Alta team will attend two (virtual or in person) meetings with agencies during this phase of the project.

Deliverables of ROW (60%) Phase: Draft and final ROW plan, memo on GSI SCM models and calculations, plats for potential easements and acquisitions, appraisal report(s) (if needed), preliminary cost estimate, agency coordination meeting minutes.

PS&E (90%) DESIGN

At this stage, major agency coordination will be nearing its end. A materially complete plan set will be completed, with drawings prepared in accordance with NCDEQ and NCDOT standards and comments, design features identified, and including profiles and sections of roadway and structures, inverts, dimensions, landscape items, roadway regrading plans (if and where needed), and details. At this stage the draft specifications will be prepared for review and the draft engineer's estimate of construction cost completed.

TASK 19 - PLAN REVISIONS (ANTICIPATED TWO MAXIMUM ROUNDS AFTER 60% DESIGN SET) (ALTA. **DEWBERRY, AND DRMP)**

The Alta team will complete up to two rounds of revisions to the 60% design set, based on agency and City comments, in preparation for the 90% Plan.

TASK 20 - 90% DESIGN PLANSET (ALTA, DEWBERRY, AND DRMP)

The Alta team will prepare a 90% Plan for the project in CAD based on the ROW Plan and revisions. It will submit the plan to agency review. Upon receipt of comments, up to one more round of revisions will be completed.

TASK 21 - AGENCY COORDINATION (ALTA. **DEWBERRY, AND DRMP)**

The Alta team will attend two (virtual or in person) meetings with agencies during this phase of the project.



TASK 22 - DRAFT SPECIFICATIONS

TASK 23 - DRAFT ENGINEER'S ESTIMATE OF CONSTRUCTION COST (ALTA AND DEWBERRY)

Deliverables of PS&E (90%) Phase: Two 60% plan revisions, Draft and final PS&E plan, draft specifications set, draft engineer's estimate of construction cost, agency coordination meeting minutes.

FINAL DESIGN

After final comments from review agencies are addressed, the plansheets will be prepared for final submittal and preparation for the bid phase. The plans will include full size design drawings, final specifications and engineer's estimate of construction cost, and copies of utilities/agencies response letters and approvals, including an NCDOT **Encroachment Permit.**

TASK 24 – NCDOT ENCROACHMENT PERMIT (ALTA)

TASK 25 - PLAN REVISION (ANTICIPATED ONE **ROUND AFTER 90% STAGE) (ALTA, DEWBERRY, AND** DRMP)

TASK 26 - FINAL PLANSET, SPECIFICATIONS AND **ESTIMATE**

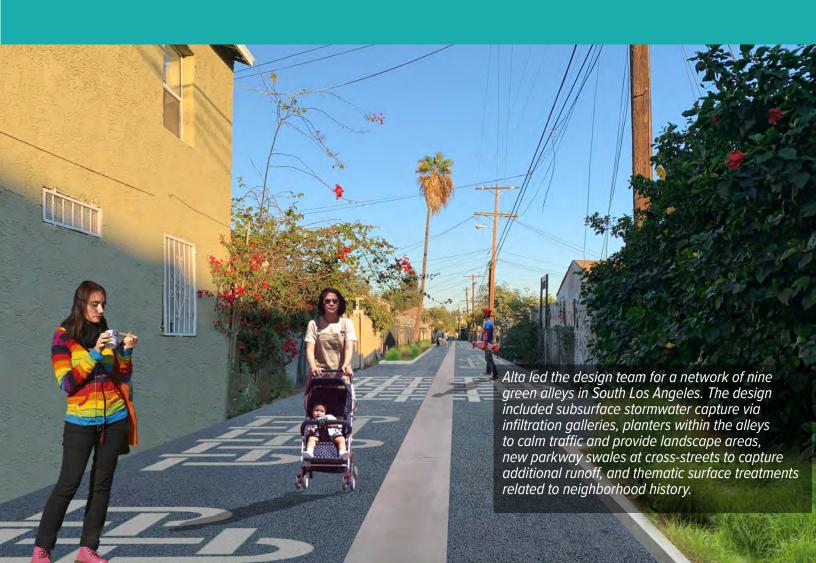
Deliverables of Final Design Phase: Draft and final Design plan, final specifications set, final engineer's estimate of construction cost.

At Alta, Quality Assurance and Quality Control (QAQC) measures are incorporated into every step and task of a project. Two main layers of QAQC are present at each stage of design: first, our designers utilize custom design checklists during the design process to check on their own work; second, a senior level engineer provides an overthe-shoulder review at each stage of design, coordinating closely with the Project Manager. At major milestones, prior to each agency submission, the senior engineer and project manager send the plans for PIC and QAQC Principal review – accordingly, plans undergo a round of revisions even prior to an official submission.

A similar process will take place in Alta's review of our teaming partner's work. After their own internal QAQC process review, plans will be sent to Alta PIC and QAQC Principal review prior to submittal to the client project manager or an agency. In the case of work performed by DRMP, because it is a sister company of Alta, communications will be even more seamless – we share a Microsoft Teams network and review processes, and thus project update and QAQC tasks will be expedited.

c)

Project Team & Project Management



Organizational Chart

CITY OF HIGH POINT PUBLIC SERVICES DIRECTOR

Robby Stone

PRINCIPAL-IN-CHARGE

Spencer Finch, PE, LEED AP

PROJECT MANAGER

Tom Natwick, PE

QAQC MANAGER

Mike Repsch, PE

Engineering

Project Engineers Trevor Dampf, P.Eng.

Doug Moore, PE Richard Virgo, PE, RSP

alta

GIS

Senior GIS Specialist Kim Voros

GIS Specialist Richard Virgo, PE, RSP

alta

Stormwater Design and Permitting

Stormwater

Andrea Hayden, PE, LEED AP Ben Koski, PE David Ross, PE

Public Engagement

Beth Smyre, PE

Wetlands Brett Feulner

Archaeology Michael Navarro, RPA

Dewberry

SUE and Utilities

Roadway Group Leader Lucas Helms, PE

Survey/SUE Engineer Steven Bailey, PLS

Traffic Engineers Andrew Eagle, PE, PTOE

Michael Dioquino, PE

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Geotechnical/ Infiltration Testing

Senior Geotech Engineer Jim Hoskins, PE

Geotech
Engineer
Mitch Crayton,
PE

Right of Way

Senior ROW Manager Andrew Ponder,

SR/WA
Senior
Acquisition &
Relocation Agent
Randy Hosch, SR/
WA

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TELICS

Alta Leadership Spotlight







Spencer and Tom worked on the previous phase of this project, performing the feasibility analysis and conceptual development of the GSI system. They will bring to the next phase of the project both their passion and their existing deep knowledge of this type of project and of the W. Green Drive corridor. Mike works on a daily basis on multiple projects with Spencer and Tom. He is well known in the state for his sharp reviews and the ultimate quality of plans produced, and will serve as QAQC manager for the project.

QUALITY ASSURANCE/QUALITY CONTROL

Alta takes pride in producing quality plans, specifications and cost estimates and works to see that all team members have the information necessary to produce high quality results. We have established Quality Assurance policies/guidelines to integrate quality, cost, and schedule control into our daily work routines. We require our subconsultants to apply equivalent quality and cost control procedures on their work, and their work will be reviewed by Alta before submitting to the City for review.

The QA/QC process will be led by the designated QA/QC Manager for the project, Mike Repsch, PE, whose primary role will be to verify the accuracy and consistency of project deliverables. Yet, QAQC steps do not just happen at the end of a task. Design checklists and senior engineer check-ins are used every week to check that designs are progressing appropriately. Then, at major milestones, the PIC and then the QA/QC Manager perform reviews of major deliverables before submissions.



YEARS OF EXPERIENCE

25 years

EDUCATION

MSc, Environmental Engineering, Pennsylvania State University

BSc, Mechanical Engineering, University of Pennsylvania

BA, Political Science, Albright College

AREAS OF EXPERTISE

Green Stormwater Infrastructure design (GSI) Environmental permitting Grant writing and management

REGISTRATIONS

Professional Engineer: NJ (#24GE04624300) LEED Accredited Professional

OFFICE LOCATION

Durham, NC

Spencer Finch, PE, LEED AP Principal-in-Charge



Spencer is an engineering leader with 25 years of experience. His distinctive set of skills and expertise includes green stormwater infrastructure planning and design; environmental, transportation and natural resources permitting; sustainable infrastructure; transportation engineering (Complete Streets and bicycle and pedestrian facility planning and design); and environmental engineering and due diligence. Spencer's experience covers not only planning and engineering, but also strategic guidance, program management, business development, and team-building and management. He has expertise in grant writing/grant management, helping projects secure funding at early stages of development and advance through subsequent stages.

Relevant Experience

High Point West Green Drive Green Stormwater Infrastructure Conceptual Design, NC

Alta conducted an analysis for the feasibility of installing Green Stormwater Infrastructure (GSI) stormwater control measures (SCMs) on the street. As Project Manager and Principal-in-Charge, Spencer developed and managed the scope for the feasibility assessment and alternatives analysis, supervised the team as they developed the conceptual design and cost estimate, and helped secure a \$5 million NCDEQ LASII grant for the project.

Elm Street and Heritage Greenway Design, High Point, NC

Spencer is the Principal-in-Charge of the Elm Street and Heritage Greenway Design project for the City of High Point. Alta is currently engaged in the 30% Design Plan phase of the project, which will prepare 30% design plans for two alternative alignments of the Heritage Greenway (dependent on railroad acquisition) and for the makeover of Elm Street into a safer, greener, more inviting corridor for pedestrians and bicyclists, connecting downtown High Point to the Amtrak Station and the Truist Stadium, among other destinations.

Utley Creek Greenway Design Phase II, Holly Springs, NC

With Spencer as Principal-in-Charge, Alta led the design of the second phase of the Utley Creek Greenway. The greenway will connect the Holly Glen neighborhood to the first phase of the greenway. The project consists of preparing preliminary design, survey, drainage design, structural design, trail construction drawings and specifications, and permitting for approximately one mile of a 10-foot-wide asphalt trail, drainage culverts and boardwalks.

Parkside Edge at Centennial Commons Green Stormwater Infrastructure Engineering, Philadelphia, PA*

Spencer was Project Manager, leading engineering and permitting for this \$6.2 million green stormwater infrastructure and Complete Street project at the edge of the city's West Fairmount Park. This project helped create safe neighborhood gateways for the low-income neighborhood into the park.

Bartram's Mile, Philadelphia, PA*

As Project Manager, Spencer led engineering and permitting for this award-winning \$4.5 million trail, park, green stormwater infrastructure, and Complete Street project (part of the Schuylkill River Trail and a link in the national East Coast Greenway).

*Completed prior to joining Alta



YEARS OF EXPERIENCE 17 years

EDUCATION

BS, Civil Engineering, Valparaiso University

REGISTRATIONS

Professional Engineer: NC (#045928); CO Z#0049093); CA (#C78770); FL (#81209); UT (#9799949-2202); ID (#17145); TN (#125522); AR (#198158); LA (#0045265); AL (#40000-E) **NCEES Record Holder** #55659

OFFICE LOCATION

Minneapolis, MN



YEARS OF EXPERIENCE 24 years

EDUCATION

BS, Civil Eng & ME, Env Eng, University of Hartford

REGISTRATIONS

Professional Engineer: NC (#33609); AL (#39324-E); AR (#19538); CT (#25098); DC (PE#920415); DE (#20331); FL (#79870); GA (#039011); IL (#062066470); MD (#47150); MA (#51298); PA (#PE084236); SC (#31691); TN (#123787); VA (#0402053544)

OFFICE LOCATION

Durham, NC ALTA PLANNING + DESIGN, INC.

Tom Natwick, PE

Project Manager

Tom is a Professional Engineer with a comprehensive background in civil transportation design. He has worked on projects involving active transportation, roadway, pedestrian facility design, light rail, grading, stormwater management, and utilities design across North Carolina, the U.S. and internationally. Tom is passionate about innovation in multimodal design, bikeway design, and making a positive difference in communities.

Relevant Experience

- West Green Drive Green Stormwater Infrastructure Grant Support, High Point, NC (Assistant Project Manager)
- Batchelor Creek Greenway and Cross Country Course Design, Cary, NC (Project Manager)
- Atlantic Avenue Multimodal Feasibility Assessment, Raleigh, NC (Project Manager)
- Lake Wheeler Road Design Improvements, Raleigh, NC (Project Manager)
- Tradition & Village Parkway Design, Port St. Lucie, FL (Project Manager)
- Wilson Bicycle and Pedestrian Corridor Improvement Project, Wilson, WY (Project Manager)
- Scott and Gill Roads Protected Intersection Design, Jackson, WY (Project Manager)
- 7th Street Connection Complete Streets Redesign, Oakland, CA (Project Manager and Design Lead)
- MnDOT TH 55 Pedestrian Safety Interim Project, Minneapolis, MN (Assistant Project Manager)



Mike Repsch, PE

QA/QC Manager

Mike is a Principal and Professional Engineer with 24 years of experience. He has a vast, diverse background working on challenging active transportation projects throughout the United States. His ability to provide multi-disciplinary services from planning to engineering makes him a unique asset to any team. Mike has spearheaded numerous projects from inception through design and development. Mike's highlighted projects include: greenway and bikeway design, green infrastructure design, multimodal corridor studies, transportation system improvements, and transit and access plan for pedestrians and bicyclists.

Relevant Experience

- Utley Creek Greenway Phase 2, Holly Springs, NC (Project Manager)
- Cross Charlotte Trail Hidden Valley Corridor Design, Charlotte, NC (Principal-in-Charge)
- Cornwallis Road Pedestrian and Bicycle Improvements, Durham, NC (Project Manager)
- Gorman Street Separated Bike Lane, Raleigh, NC (Principal-in-Charge)
- City of Durham Bicycle Network and Facilities Improvements, Durham, NC (Project Manager)
- Wolf River Greenway Designs Including Greenway, Separated Bike Lanes, Trailheads, Boardwalks, Pedestrian Bridges and Other Multimodal Facilities, Memphis, TN (Project Design Services for W. Green Drive Stormwater Infrastructure Manager)



YEARS OF EXPERIENCE 24 years

EDUCATION

BS, Environmental Science, North Carolina State University

REGISTRATIONS

Professional Engineer: NC (#028933), SC, GA, FL LEED Accredited Professional • Notary Public

OFFICE LOCATION Charlotte. NC



YEARS OF EXPERIENCE 12 years

EDUCATION

Master of Civil Engineering, NCSU BS, Civil Engineering, UNC Charlotte

REGISTRATIONS

Professional Engineer: #043171, NC; #36625 SC

OFFICE LOCATION

Cary, NC

Andrea Hayden, PE, LEED AP

Stormwater Lead

Andrea has over 24 years of professional experience in hydrologic and hydraulic design. Her project experience includes storm drainage design, erosion control design, hydraulic design for culverts and bridges, waterline design, utility coordination, and site design. Andrea is proficient in Geopak Drainage, HEC-RAS, and numerous other water resource related software packages.

Relevant Experience

- Smithville Infrastructure Improvements, Town of Cornelius, NC (Stormwater Lead)
- City of Charlotte Storm Water On-Call, Charlotte Storm Water Services, NC (Contract Manager)
- Grant Management Services for Five Stormwater Infrastructure Improvement and Water Quality Projects, City of Charlotte Stormwater Services, NC (Stormwater Lead)
- Mallard Creek Park and Ride On-Call Multidiscipline Support, City of Charlotte, NC (Design Engineer)*

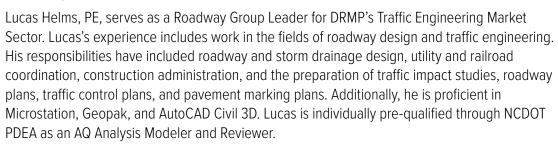
*Completed prior to joining Dewberry

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Dewberry

Lucas Helms, PE

Roadway Group Leader



Relevant Experience

- Town of Chapel Hill Homestead Road Improvements, Orange County, NC (Project Manager)
- Franklin Street Road Diet Restriping, Town of Chapel Hill, Orange County, NC (Project Manager)
- Chapel Hill Transit Bus Stop Improvements, Town of Chapel Hill, Orange County, NC (Project Manager)

Staff Capacity Chart

Staff	Spencer	Tom	Mike	Andrea	Lucas	Trevor	Doug	Ben	David
	Finch	Natwick	Repsch	Hayden	Helms	Dampf	Moore	Koski	Ross
Capacity	50%	55%	50%	60%	45%	40%	50%	35%	40%

Additional Staff Bios



Doug Moore, PE is an Engineering Designer in **Alta's** Durham, NC office and has five years of design experience on roadway and mulitmodal projects for NCDOT and municipalities across North Carolina. As a regular e-biker he has a passion for making the built environment safer and easier for cyclists and pedestrians. Doug is currently serving as an engineer on the Elm Street and Heritage Greenway Design Project for the City of High Point.



Trevor Dampf, P.Eng. is a Professional Engineer in **Alta's** Toronto, ON office with a background in planning, design, and construction administration of municipal and land development projects. He has experience working with municipalities to determine cost effective and sustainable solutions for infrastructure upgrade and rehabilitation designs including multimodal transportation projects.



Kim Voros, GISP is a leader in Alta's Civic Analytics service area working in Seattle, WA. She has led the development of many of Alta's primary bicycle and pedestrian analysis tools. Her work is focused in GIS-based modeling, cartography, infrastructure planning, network development, and implementation. Kim is the Technical Lead for Alta's work with the NC Capital Area Metropolitan Planning Organization (CAMPO) on an updated blueprint for bicycle and pedestrian planning in the Raleigh area.



Richard Virgo, PE, RSP is an Engineer in **Alta's** Charlotte, NC office. He has experience in creating comprehensive transportation plans in both urban and rural contexts, public engagement, feasilbilty studies, corridor development, and Complete Streets. Richard works on engineering projects, including intersection retrofits and greenway corridors, as well as planning projects and other GIS and data analyses. Richard worked on the LASII application and created GIS maps for the City of High Point's W. Green Drive Grant Support project, and provides ongoing GIS and mapping support for the FEMA-BRIC application.



Steven Bailey, PLS, serves as the Cary Survey Department Manager for **DRMP**'s Survey and Mapping/Geospatial Market Sector. His professional experience includes department management, technical writing, construction layout, control network, boundary surveys, topographic surveys, route surveys, stream restoration surveying, mobile scanning, and static HD scanning.



Andrew Eagle, PE, PTOE, seserves as a Senior Traffic Engineering Project Manager for DRMP's Traffic Engineering Market Sector in Cary, NC. His responsibilities with the firm include various traffic engineering, planning, and design tasks in the areas of comprehensive transportation planning, traffic forecasting, traffic modeling, and traffic impact studies. In addition to traffic impact studies, Andrew has experience in capacity analysis, traffic simulation, roundabout analysis, interchange analysis, signal warrant analysis, and signal timing.



Michael Dioquino, **PE**, serves as a Transportation Design Associate for **DRMP**'s Transportation Market Sector in Cary, NC. Michael has six years of experience with roadway design and transit design, as well as experience with hydraulics. His responsibilities include assisting with drainage plans, traffic control plans, pavement marking plans, and construction administration.



Beth Smyre, PE, working in **Dewberry**'s Raleigh office, has over 22 years of experience in infrastructure planning and environmental permitting. Her experience includes extensive public outreach, development of NEPA/SEPA documentation (CE, EA, EIS), and agency coordination. Beth's recent experience includes state and municipal transportation projects, community-based resilience planning, municipal grant application development, and long-range infrastructure planning.



Ben Koski, PE is a Senior Project Manager in **Dewberry**'s Charlotte office who has been extensively involved in water/wastewater projects for municipal, private, and higher education clients. He is proficient in Innovyze InfoWorks, AutoCAD, ArcGIS, and MicroStation software platforms. His relevant experience includes working as a utility engineer on the Whites Mill PS & FM Upgrade for the City of High Point.



Brett Feulner is a Team Lead in **Dewberry**'s Raleigh office for environmental studies including wetland and stream determinations, Wetland and Stream assessments, Environmental Permitting and Protected Species surveys and coordination for multiple public sector and private sector clients.



Michael Navarro, RPA, working in **Dewberry**'s Raleigh office, supports his team in the research, investigation, and/or mitigation of historical or cultural resources. Fieldwork prior to joining Dewberry includes excavations, surveys, and laboratory investigations across multiple countries and time periods. His specialization with archaeological human skeletal remains helps clients navigate the sensitive legal and ethical ramifications within those projects.



David Ross, PE, working in **Dewberry**'s Raleigh office, is a Project Manager with experience working on a variety of projects including water, wastewater, site/civil, and energy serving local, state, and commercial clients. He has worked closely with the division of water infrastructure to secure project funding and also administered the associated rules and regulations to the contractor during construction. He is proficient in AutoCAD, stormwater modeling Civil3D softwares, and other design softwares that support in design.



Andrew Ponder, SR/WA is knowledgeable in all phases of Right of Way Negotiation and Relocation Assistance for residential and business properties. As a member of the TELICS team located in Statesville, NC, he has successfully completed acquisitions and provided project management oversight for numerous infrastructure development projects, local and state highway, public transportation, telecommunication, airport, and utility projects.



Randy Hosch, SR/WA is a member of the TELICS team located in Statesville, NC. He has 17 years of experience in acquiring land rights through negotiation, suit preparation, and donations. He is also skilled at providing relocation assistance services to business and residential displacees. He has performed these Acquisition and Relocation services for a variety of clients including municipalities and state Departments of Transportation.



Jim Hoskins, PE started in the geotechnical and testing consulting industry in 1984 as a Project Technician and has advanced in that field to his current position as Senior Principal and Office Manager at Terracon's Greensboro, NC office. Jim has been involved with 500+ pavement evaluation and design projects for parking lots, highways, airports, and large-scale transportation facilities. Additionally, he has completed more than 100 utility/site development projects.



Mitch Crayton, PE is a licensed Civil Engineer (PE) with experience performing geotechnical investigations, engineering design, and project management, working in **Terracon's** Greensboro office. These projects include shallow and deep foundations design, settlement and slope stability analysis, pavement design, geotechnical earth retention (shoring) creation of project proposals, and geotechnical engineering reports.

Project Schedule

Project Schedule

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e)

Terms and Conditions of the Contract

f)

References

Terms and Conditions of the Contract

Alta agrees to the previously negotiated terms as written in the previous contract executed August 8, 2023.

ALTA'S UNDERSTANDING AND COMMITMENT TO THE CITY'S M/WBE PROGRAM

The Alta Team has read and understands the City's M/WBE program. We are committed to supporting High Point's DBE/HUB goals, and would be glad to engage with the City to adjust our scope and approach, should you so desire.

References

Below are references for our project team, including Alta and Dewberry. The references are capable of speaking to the team's ability to finish projects within the project timeframe and the firms' demonstrated ability to respond to the proposed project. More detailed information for each project is listed in the project cut sheets beginning on **page 3**.

1. Ryan Brumfield

Director NCDOT Integrated Mobility Division (919) 707-2601 rmbrumfield@ncdot.gov

High Point Grant Management and Support Services, USDOT RAISE (Alta)

2. Jesse Day

Regional Planning Director Piedmont Triad Regional Council (336) 904-0300 x 3000 jday@ptrc.org

High Point Grant Management and Support Services, NCDEQ LASII (Alta)

3. Andrew Edmonds

Transportation Planning Administrator (336) 883-3235 andrew.edmonds@highpointnc.gov

High Point Elm Street and Heritage Greenway Design (Alta)

4. Matt Beard, AICP

Park Planner Town of Holly Springs (919) 567-4018 matt.beard@hollyspringsnc.us *Utley Creek Greenway Phase 2, Holly Springs, NC (Alta)*

5. Tyler Beardsley

Assistant Town Manager Public Works Director (704) 892-6031 ext. 127 tbeardsley@cornelius.org

Smithville Neighborhood Improvements (Dewberry)

"Alta has provided consulting services for nearly every planning effort along this corridor in the past decade. With their intimate knowledge of the project, knowledge of the community, and their technical skills - they were the perfect firm to assist NCDOT and City in preparing our grant application.

Alta provides amazing results in a timely manner. Their team pulled many long hours on nights and weekends when we were faced with a tight deadline of submitting an application. It is my personal opinion that they are a large reason as to why we were successful in winning an award."

Andrew Edmonds, Transportation Planning
Administrator
High Point Metropolitan Planning Organization
High Point Elm Street and Heritage Greenway Design

Appendix: Forms

Alta has made a good-faith effort to include minority participation but currently does not proposal to include any minority participation in our proposal. Alta is committed to supporting High Point's DBE/HUB goals, and would be glad to engage with the City to adjust our scope and approach, should you so desire.

AFFIDAVIT-MINORITY PARTICIPATION

The City of High Point is committed to providing equal opportunities for participation in all aspects of the City of High Point contracting and purchasing programs including, but not limited to, participating in procurement contracts for, materials, services, construction and repair work activities, and lease agreements in the City of High Point. The Purchasing Division actively seeks to identify qualified minority, handicapped, disadvantaged, and women-owned business enterprises so as to widen opportunities for participation as providers of goods and services, increase competition and ensure the proper and diligent use of public funds.

(NOTE: THIS FORM IS TO BE SUBMITTED WITH THE BID PROPOSAL)

Portion of the Work to be performed by Minority Firms

Project ID# 29-022924 (Project N	Name)	Amount of	`Bid \$TBD	
I will expend a minimum of 0 business enterprises. Minority business, suppliers or providers of profirms listed below. Attach additional sheets if required	inesses will be	e employe	d as construction subc	ontractors,
Name and Phone Number	Minority Category	HUB Certified (Y/N)	Work Description	Dollar Val
N/A				
*Minority categories: Black, African Americ (F) Socially and Economically Disadvantage				n (I), Female
The undersigned hereby certifies that authorized to bind the bidder to the co				and is
Date: 2-22-24 Name of Authoriz	ed Officer: M	att Hayes		
	Signature:	Natt 1	Taa.	
	Title: Vi	· · · · · · · · · · · · · · · · · · ·		

Alta Planning + Design, Inc.

I do hereby certify that on the

STATE OF NORTH CAROLINA CITY OF HIGH POINT E-VERIFY AFFIDAVIT

I, Matt I tayes (the individual attesting below), bei	ing duly authorized by and on behalf of
Alta Planning + Dosign (the entity bidding on project he	ereinafter "Employer") after first being duly sworn
hereby swears or affirms as follows:	
Employer understands that <u>E-Verify</u> is the federal E-Verify program	gram operated by the United States Department of
Homeland Security and other federal agencies, or any successor or equ	ivalent program used to verify the work
authorization of newly hired employees pursuant to federal law in acco	ordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each	n employer, after hiring an employee to work in the
United States, shall verify the work authorization of the employee through	ugh E-Verify in accordance with NCGS§64-26(a).
3. <u>Employer</u> is a person, business entity, or other organization that	at transacts business in this State and that employs
25 or more employees in this State. (mark Yes or No)	
a. YES or	
b. NO <u></u>	
4. Employer's subcontractors comply with E-Verify, and if Employ	er is the winning bidder on this project Employer
will ensure compliance with E-Verify by any subcontractors subsequent	ly hired by Employer.
This 2nd day of January 2024	
Moto 12	
Signature of Affiant Print or Type Name: Matt Hages	
Fill of Type Name	
State of NC County of Durham	- лининии
Signed and sworn to (or affirmed) before me, this the 2nd	Affix Of Notary Public K
day of <u>January</u> 20 <u>2</u> .4	ficial/ Wake Silling County
My Commission Expires:	My Comm. Exp. (1975)
8 13 12028 Jane K. Linville	Seal)

Notary Public



Addendum 1

RFQ 29-022924

Design Services-W Green Drive Stormwater Infrastructure Systems

The intent of this addendum is to clarify specifications and to provide responses to submitted questions as follows:

Question: Can you clarify this statement on page 2: "This project's timeline is subject to the fiscal deadlines set forth by U.S. Treasury for ARPA funds, which require the funds to be obligated by December 31, 2024, and then expended by December 31, 2026."

<u>Answer:</u> The date that applies to respondents of this RFQ is December 31, 2026, which remains the date by which the final project must be fully constructed and delivered. The December 31, 2024, obligation deadline does not apply to RFQ respondents in this instance because the City of High Point is a subrecipient of ARPA funds. Subrecipients are not subject to the December 31, 2024, obligation deadline, per U.S. Treasury's Obligation Interim Final Rule.

Please sign and return one (1) copy of this addendum with your proposal to confirm that you have received and acknowledged the provided information.

Candy Harmon, Purchasing Manager Purchasing Department		
Company: Alta Planning + Design, Inc.		
Address: 111 E. Chapel Hill St, Suite 200, Durham, NC 2770	1	
Signature:	_Date: _	2/26/24
Email: spencerfinch@altago.com		_

City of High Point | P.O. BOX 230, High Point, NC 27261 | 336.883.3219

