



HISTORIC
FRANKLIN
TENNESSEE

ITEM #6
CIC
10-10-13

MEMORANDUM

October 10, 2013

TO: Board of Mayor and Aldermen

FROM: Eric Stuckey, City Administrator
David Parker, City Engineer/CIP Executive
Paul P. Holzen, Director of Engineering
William Banks, Staff Engineer

SUBJECT: **Consideration of a Professional Services Agreement (COF Contract No. 2013-0180) with Neel-Schaffer, Inc. for the Design of the 100 Block Battle Avenue Drainage Improvements Project**

Purpose

The purpose of this memorandum is to recommend approval to the Board of Mayor and Aldermen (BOMA) of a Professional Services Agreement, COF Contract No. 2013-0180, with Neel-Schaffer for the design of the 100 Block Battle Avenue Drainage Improvements Project.

Background

For years there have been properties in the Battle Avenue area that have experienced localized flooding, adjacent to both Alicia Drive and Academy Street. During the May 2010 flood there were approximately 10 properties that reported damage. A professional service agreement (PSA) (COF Contract No. 2012-0144) with Neel-Schaffer, Inc. was approved on July 24, 2012, that included the development of a hydrologic and hydraulic model to determine existing conditions, flows and elevations, the development of alternative options to improve the localized flooding, and a detailed structural inspection/report of the bridge over sharps branch.

The properties we specifically looked at in the study included 109, 111, 113-115, 407, and 409-412 Battle Avenue. We know these properties were significantly affected during the May 2010 Flood. The City is also aware of the ongoing flooding in these areas. While the 400 Block of Battle Avenue area basin study is still under review, the 100 Block Battle Avenue area basin study is now complete. We are ready to move forward with an improvements project for the 100 Block area residents. The next step is to authorize our consultant, Neel-Schaffer, to begin the actual survey and design work required to make the project ready for construction. See Exhibit A, Pages 1-6, for the detailed scope of work.

Exhibit B, Pages 1-5, shows the two Battle Avenue Drainage Study plan alternatives for improving the 100 Block. Staff is recommending that this Design PSA with Neel-Schaffer utilize a combination of both Alternative 1 and Alternative 2. Including certain aspects of each Alternative, a more feasible and economical solution can be implemented. The inclusion of yard inlets from Alternative 2, added to the ditch and pond improvements within Alternative 1, will reduce flooding and drainage issues for all 5 of the flood prone properties.



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MEMORANDUM

Financial Impact

Engineering Design services with Neel-Schaffer are at a not-to-exceed cost of Sixty-Three Thousand Five Hundred Dollars (\$63,500.00). This includes all proposed services listed in Exhibit A: Topographic Survey, Hydrologic and Hydraulic analyses, preparing Final Plans, prepare Contract Specifications, and submit Construction Cost Estimates. Not included in these fees are Bidding or Construction Administration Tasks.

The overall Battle Avenue Project was included in the FY2012-2013 Stormwater Budgeted under Capital; 89410 Drainage; Eng-Battle Ave Design and Construction at \$1,100,000.

Current expenditures include the already approved Neel-Schaffer Drainage Study – \$46,500.00 (Not to Exceed). The Figuers Drive Area Drainage Improvements Project could be paid out of the same fund (Tentative Project on the 10/10/13 CIC Agenda, \$82,000.00).

Recommendation

Staff recommends approval of COF Contract No. 2013-0180 with Neel-Schaffer, Inc. for the 100 Block Battle Avenue Drainage Improvements Project, in an amount not-to-exceed \$63,500.00.

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No 2013-0180**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and NEEL-SCHAFFER, INC. hereinafter referenced as Consultant, who mutually agrees as follows:

DECLARATIONS. City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

**100 Block Battle Avenue
Drainage Improvements Design**

1. **SCOPE OF SERVICES.** Consultant shall provide engineering and related technical services for the Project in accordance with the SCOPE OF SERVICES. The SCOPE OF SERVICES as found in Exhibit A shall be considered as an integral part hereof.
2. Consultant shall be paid on an hourly basis for work performed based on the FEE SCHEDULE as contained in Exhibit A in the Amount Not To Exceed **SIXTY THREE THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$63,500.00)**. The FEE SCHEDULE shall be considered as an integral part hereof.
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.

**The Board of Mayor and Aldermen Approved this Agreement on the
_____ Day of _____ 2013.**

BY: _____
Consultant's Signature
TITLE: _____
Date: _____

BY: _____
Dr. Ken Moore
Mayor
Date: _____

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the PROJECT acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party. However, nothing in this Article shall prevent Consultant from

engaging independent consultants, associates, and subcontractors to assist in the performance of the Services at Consultant's cost.

3.4 **ALLOCATION OF RISK AND LIABILITY; GENERAL.** Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this paragraph.

3.5 **INDEMNIFICATION.** Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.

3.5.1 **SURVIVAL.** The terms and conditions of this paragraph shall survive completion of this services agreement.

3.6 **LIMITATIONS OF RESPONSIBILITY.** Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, **SCOPE OF SERVICES**; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, **SCOPE OF SERVICES**.

ARTICLE 4. TERMINATION BY THE CITY. The City may terminate this Agreement in accordance with the following terms and conditions:

4.1 **Termination for Convenience.** The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate

outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:

- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
- (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
- (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
 - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;
 - (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

ARTICLE 5. SCOPE OF SERVICES. Consultant shall provide the Services as described in Attachment A, SCOPE OF SERVICES.

5.1 By mutual agreement, this contract and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

ARTICLE 6. SCHEDULE.

6.1 **TIME OF THE ESSENCE.** The parties agree that TIME IS OF THE ESSENCE with respect to the parties' performance of all provisions of the Agreement.

6.2 **FORCE MAJEURE.** Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.3 Should City request changes in the scope, extent, or character of the Project, the time of performance of Consultant's services as indicated in Attachment A shall be adjusted equitably.

ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. Consultant shall retain an ownership and property interest therein (including the right of reuse at the discretion of the Consultant) whether or not the Project is completed.

7.1.1 USE OF DATA SYSTEMS: Ownership, property interests and proprietary rights in data systems used by Consultant do not extend to the data created by or supplied to Consultant by the City; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation.

7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.

7.2 City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.

7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or

- of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, SCOPE OF SERVICES. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.
- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer hardware differing from that as required of, and used by, Consultant at the beginning of this Project.
- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's Consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
- a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.

- c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
 - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope Of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.
- 9.2 Consultant shall be paid in full for all services under this Agreement, including City-authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope Of Services.
- 9.3 TRAVEL; EXPENSES
The City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope Of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at www.gsa.gov [click on 'per diem rates' under the 'etools' category].

ARTICLE 10. MISCELLANEOUS PROVISIONS

10.1 **EQUAL EMPLOYMENT OPPORTUNITY.** In connection with this Agreement and the Project, the City and the Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. The City and Consultant will take affirmative action to ensure that contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.

10.1.1 The Consultant shall insert the foregoing provision in all contracts relating to this Project.

10.2 **TITLE VI – CIVIL RIGHTS ACT OF 1964.** The City and the Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.

10.2.1 The Consultant shall insert the foregoing provision in all contracts relating to this Project.

10.3 **NO THIRD PARTY RIGHTS CREATED.** City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the City and the Consultant.

10.4 **WARRANTIES/LIMITATION OF LIABILITY/WAIVER.** The City reserves all rights afforded to local governments under law for all general and implied warranties. The City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

ARTICLE 11. EXTENT OF AGREEMENT:

11.1 **APPLICABLE LAW/CHOICE OF FORUM AND VENUE.** This Agreement is made under and will be construed in accordance with the

laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

- 11.2 **ENTIRE AGREEMENT.** This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

ARTICLE 12. DISPUTE RESOLUTION, BREACH.

- 12.1 If a dispute should arise relating to the performance of or payment for the services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to the Contract. No arbitration or mediation shall be binding.

- 12.2 **BREACH.** Upon deliberate breach of the Contract by either party, the non-breaching party shall be entitled to terminate the Contract with notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

ARTICLE 13. SURVIVAL.

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Contract, agreement or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.

September 25, 2013

Mr. William G. Banks
City of Franklin
Staff Engineer
City Hall
109 3rd Avenue South
Franklin, Tennessee 37064

REF: Proposal for Additional Modeling and Preparation of Contract Plans and Specifications for Recommended Drainage Improvements Within the 100 Block of Battle Avenue

Dear Mr. Banks,

We appreciate you contacting Neel-Schaffer concerning additional modeling and preparation of contract plans and specifications for the recommended drainage improvements within the 100 block of Battle Avenue. The following is our best interpretation of the scope and tasks that we have previously discussed. This proposal covers the services that have been generally discussed with you for the additional modeling and preparation of contract plans and specifications for the recommended drainage improvements within the 100 block of Battle Avenue. The design, development of contract plans and specifications, assistance with the bid process and limited construction and engineering will be completed in two phases. Phase 1 tasks will consist of additional survey and modeling and development of contract plans and specifications. Phase 2 tasks will consist of assisting the City with the bid process and limited construction engineering and inspection. A professional fee for the Phase 2 tasks will be developed once the Phase 1 tasks have been completed.

Scope of Work

The proposed scope of work is described in Exhibit A.

Fee

It is anticipated the maximum hourly fee, for the Phase 1 Scope of Work, contained in Exhibit A, will be approximately \$63,500.00 and includes an anticipated surveying fee of \$12,000.00. These services outlined herein will not exceed \$63,500.00 without your written authorization.

Neel-Schaffer will proceed with each item contained in the scope of work for Phase 1 only at your direction. If at any step in the scope of work, it is determined that the project becomes unfeasible to complete or is not to your expectations, Neel-Schaffer will stop work until further direction from you. You will be billed for work performed to that point. If additional services to the scope of work are required, a separate fee proposal will be prepared and the additional services will be provided after your approval of the professional fee for the additional services.

This proposal does not guarantee that the project is feasible.

City of Franklin
Development of Plans and Specifications for Recommended Drainage Improvements
Within the 100 Block of Battle Avenue
Professional Fee Proposal
page 2 of 2

Project Schedule

It is anticipated the above Scope of Work will be completed by February 1, 2014.

Thomas M. Allen

Date: 9/25/13

Thomas M. Allen, P.E., Senior Project Manager

Neel-Schaffer, Inc.



Scope of Work 100 Block of Battle Avenue

Additional Modeling and Development of Contract Plans and Specifications for Recommended Drainage Improvements

Background

Several residences located along the 100 block of Battle Avenue experience historical localized flooding. City records indicate that five residences have suffered flood and drainage related damages. A low area adjacent to Battle Avenue at 114 Battle Avenue has a relatively small volume of storage available in relation to the contributing drainage area. Previous rainfall events indicate that two to three inches of rainfall will cause water to reach the roadway surface of Battle Avenue and impede traffic.

A large low area south of 109 and 111 Battle Avenue also does not drain and allows water to pond and back up to the existing residences. A drainage ditch on the perimeter of the self storage facility was initially designed to drain to the existing storage facility detention pond. However, flooding issues during recent events indicate that the low area does not drain to the ditch. In any case, drainage from the ditch enters the detention pond via a six inch metal pipe which is significantly undersized in relation to the volume of runoff that enters the ditch from the low area behind the residences at 109 and 111 Battle Avenue and other contributing drainage areas. In addition to being undersized, the pipe into the detention pond is higher than the ditch invert at the pipe. The recommended drainage improvements are described in the following paragraphs.

Expansion of Existing Detention Basin

A self-storage facility, located at 110 Fairground Street, includes a fairly significant detention basin (detention pond). This is a privately owned detention pond and analyses showed that expansion of the pond is possible. The detention basin has no outlet or outlet control structure. Storm water runoff stored in the basin is pumped to the existing storm sewer system at the intersection of Fairground Street and Columbia Avenue. The pump station includes one primary pump without an auxiliary or emergency pump. Pump performance data was not available. Should the primary pump fail for any reason, it is possible that the detention basin would overflow into the adjacent sump area to the north during significant rainfall events.

The recommended alternative includes expansion of the detention pond approximately 100 feet to the north and increases available storage for storm water runoff. An auxiliary pump will be installed and drawdown after a rainfall event will be regulated to ensure that capacity of the storm water system where the water is pumped is not exceeded.

Water Quality Swale

The low areas in the back yards of 109, 111, and 113 Battle Avenue will be graded to drain south to a water quality swale constructed along the existing ditch that drains to the self storage detention pond. A yard drain will be installed in the low area of the back yard at 115 Battle Avenue and will discharge to the water quality swale. The water quality swale will also capture runoff from the area west of the self-storage facility. The swale will provide storm water treatment for runoff entering the enlarged detention basin and promote infiltration. The water quality swale will be graded to provide positive drainage to the enlarged detention basin.

A yard inlet and storm sewer will be installed in the front yards of 112 and 114 Battle Avenue. The storm sewer will convey runoff from the low area south to the water quality swale.

Scope of Work Tasks

The additional modeling, final design, development of contract plans and specifications, assistance with the bid process, and limited construction and engineering will be completed in two phases. Phase 1 tasks will consist of additional survey and modeling and development of contract plans and specifications for the recommended alternative. Phase 2 tasks will consist of assisting the City with the bid process and limited construction engineering and inspection. A professional fee for the Phase 2 tasks will be developed once the Phase 1 tasks have been completed. The following Phase 1 tasks will be coordinated with the City and generally consist of additional hydrologic and hydraulic modeling and analyses; developing contract plans and specifications for the recommended alternative to improve flooding along the 100 block of Battle Avenue; and probable opinion of construction costs for the recommended alternative.

Phase 1 Tasks

- 1) Kickoff meeting with City to finalize scope of work and expectations for the project;
- 2) Field reconnaissance of study area with City staff;
- 3) Finalize topographic and field survey limits and requirements;
- 4) Topographic survey of low areas at 112, 114, 109, 111, 113, and 115 Battle Avenue;
- 5) Topographic survey of proposed storm sewer alignment from low area in front of 114 Battle Avenue to proposed water quality swale (along lot line between 113 and 115 Battle Avenue;
- 6) Topographic survey of proposed water quality swale along the back yard of 109, 111, 113, and 115 Battle Avenue to the proposed expansion of the self storage detention pond;
- 7) Topographic survey of footprint of proposed expansion of the existing detention pond;
- 8) Field survey of existing detention pond including topographic survey of pond footprint and detailed survey of the existing detention pond components;
- 9) Topographic survey of parcel where the car wash is located;
- 10) Topographic survey of areas that contribute storm water runoff to the storm water management system that currently receives pumped storm water from existing detention pond;
- 11) Detailed survey of storm water management system that currently receives pumped storm water from existing detention pond;
- 12) Update hydrologic and hydraulic models used for hydraulic and hydraulic analyses for the recommended alternative with field survey data;
- 13) Expand hydrologic and hydraulic model to include storm water management system that currently receives pumped storm water from existing detention pond and area where car wash is located;
- 14) Determine existing capacity (before drainage issues occur) of storm water management system that currently receives pumped storm water from existing detention pond;
- 15) Meet with pump supplier to discuss proposed pump configuration, pump efficiency curve, and maintenance requirements for detention pond (incorporate pump operation curve into hydrologic model);
- 16) Utilize updated hydrologic and hydraulic models and analyses for final design of yard drains, storm sewers, water quality swale, expanded detention pond, and upgraded pump system for detention pond (drainage improvements);

- 17) Prepare technical report that presents the approach, assumptions, and methodology for design of the drainage improvements;
- 18) Submit to City for review;
- 19) Meet with City to discuss components of the drainage improvements;
- 20) Incorporate City comments;
- 21) Prepare contract plans, specifications, and EPSC plan for drainage improvements;
- 22) Obtain necessary permits for construction of drainage improvements;
- 23) Prepare specifications using the City's standard specifications; and
- 24) Provide an Engineer's Opinion of Probable Construction Cost at the 60%, 90% and final plan stages (Engineer's Opinion of Probable Construction Costs will be based on City unit prices – right of way costs and utility relocation costs will not be included in this Opinion of Probable Construction Costs).

Phase 2 Tasks

- 1) Prepare bid documents in accordance with City procedures ("front end" documents will be provided by the City);
- 2) Assist City with the bidding process;
- 3) Meet with City to define scope for limited construction engineering and inspection (CEI) tasks;
- 4) Prepare scope of work and fee for limited CEI tasks;
- 5) Limited construction engineering - For the purpose of this scope, it is assumed that the construction time period will be four months. This scope of work includes:
 - a. Attendance of bi-weekly meetings and preparation of meeting notes
 - b. Approval of shop drawings
 - c. Approval of monthly pay requests
 - d. Limited inspection

The professional fee for Phase 2 tasks will be developed after completion of the Phase 1 tasks.

NEEL-SCHAFFER, INC.
RATE SCHEDULE FOR PROFESSIONAL SERVICES
CITY OF FRANKLIN

EMPLOYEE CLASSIFICATION	POSITION	HOURLY RATE
P-9	Senior Officer	\$200.00
P-8	Senior Manager	\$180.00
P-7	Engineer Manager/Professional IV/Survey Manager	\$170.00
P-6	Senior Project Manager/Assistant Engineer Manager/Professional III	\$160.00
P-5	Project Manager/Professional II	\$135.00
P-4	Professional I	\$120.00
P-1, P-2, P-3	Professional Intern	\$100.00
T-6	Senior Certified Engineering Technician	\$135.00
T-5	Certified Engineering Technician/Supervisory Technician	\$110.00
T-4	Technician IV/ Inspector IV/ Surveyor IV	\$100.00*
T-3	Technician III/Inspector III//Survey Crew Chief	\$95.00*
T-2	Technician II/Inspector II/Survey Instrument Person	\$75.00*
T-1	Technician I/Inspector I/Survey Assistant	\$60.00*
T-1	Student Intern	\$40.00*
A-4	Senior Administrative	\$70.00
A-2, A-3	Clerical	\$55.00*
A-1	Assistant Clerical	\$40.00*
	Four-Member Survey Party	\$185.00*
	Three-Member Survey Party	\$160.00*
	Two-Member Survey Party	\$140.00*
	One-Member Survey Party	\$85.00*

* Hourly rates indicated for these non-exempt classifications apply to regular time. If overtime work is required to meet client's schedule, Neel-Schaffer reserves the right to negotiate overtime rates.

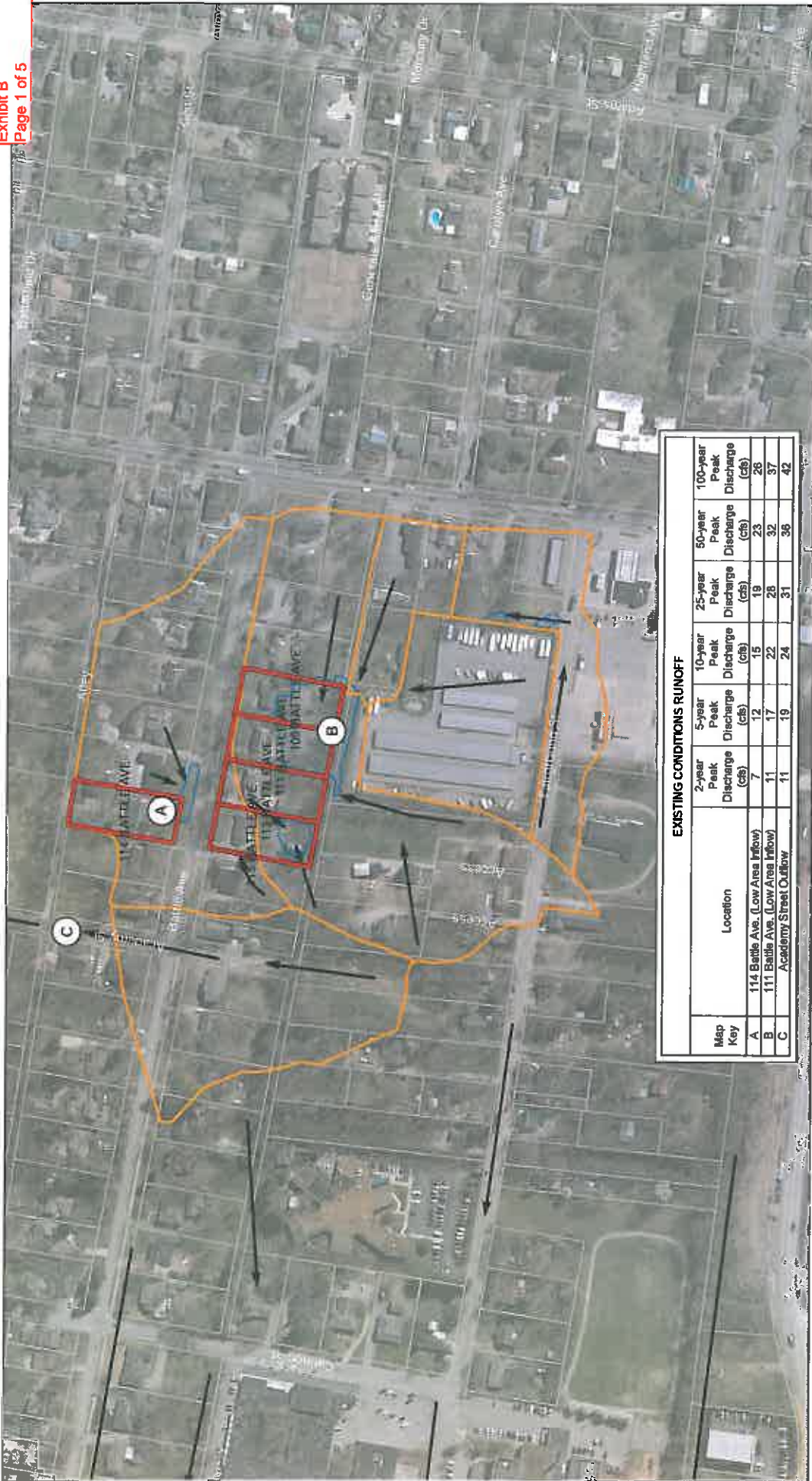
"Professional" positions include engineer, architect, geologist, scientist, landscape architect, and planner.

"Technician" positions include engineering, soil, architecture, planning, GIS and information technology.

REIMBURSABLE EXPENSE SCHEDULE

EXPENSE	COST
Vehicle Mileage	\$0.55/mile
Traffic Counter	\$10.00/day

All other expenses, including contract reproduction/printing, travel and subsistence, parking, communications, equipment rental, postage and overnight mail, and supplies will be reimbursed at actual cost.



EXISTING CONDITIONS RUNOFF

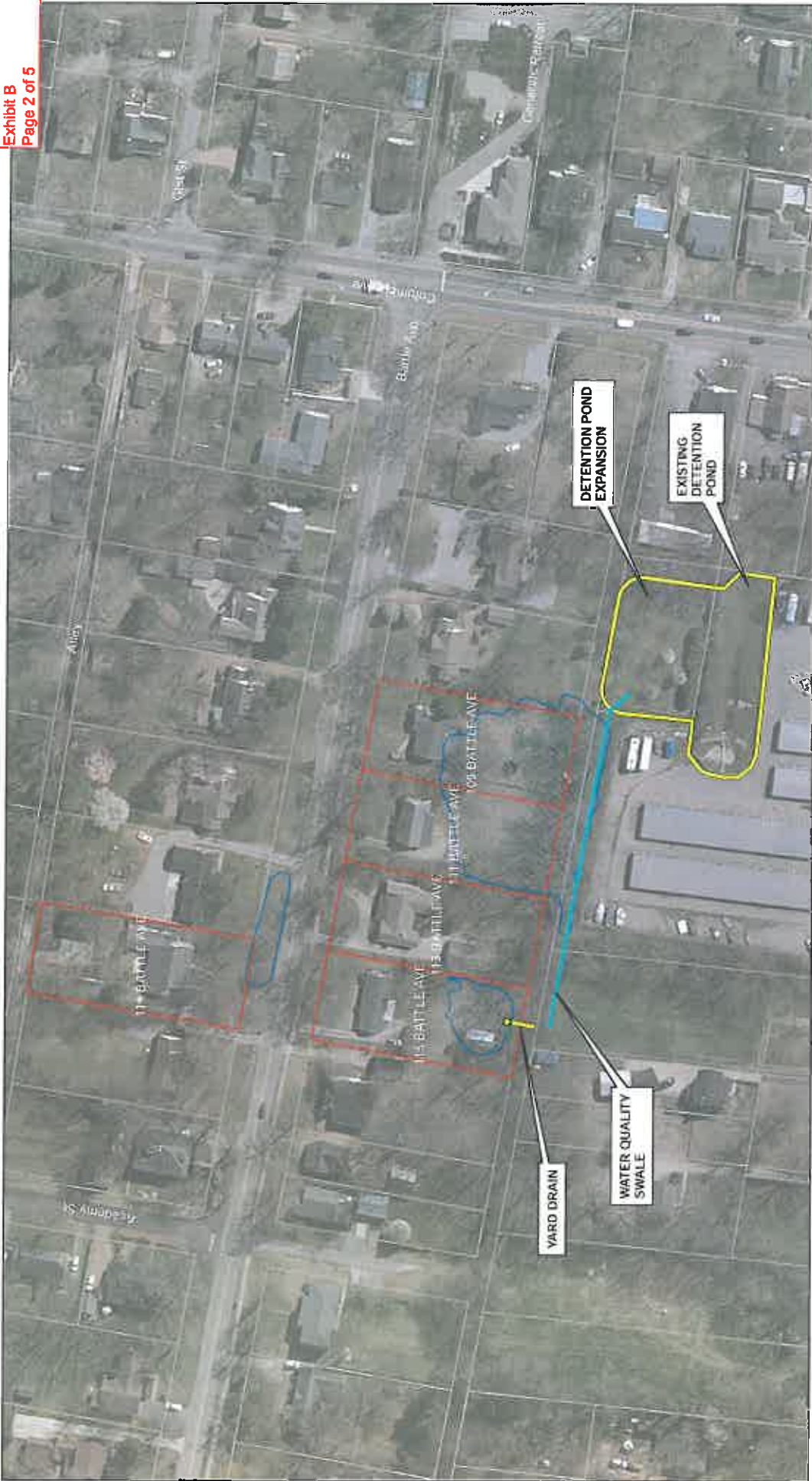
Map Key	Location	2-year		5-year		10-year		25-year		50-year		100-year	
		Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)	Peak Discharge (cfs)		
A	114 Battle Ave. (Low Area Inflow)	7	12	15	19	23	28	32	37	42			
B	111 Battle Ave. (Low Area Inflow)	11	17	22	28	32	37	42					
C	Academy Street Outflow	11	19	24	31	36	42						

Legend

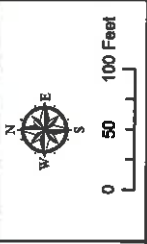
- Drainage Schematic
- Existing Low Areas
- Areas of Interest
- Parcels
- Basin 2 Subbasin Boundaries

CITY OF FRANKLIN
BATTLE AVENUE DRAINAGE STUDY





**BASIN 2
 DRAINAGE IMPROVEMENTS
 ALTERNATIVE 1**

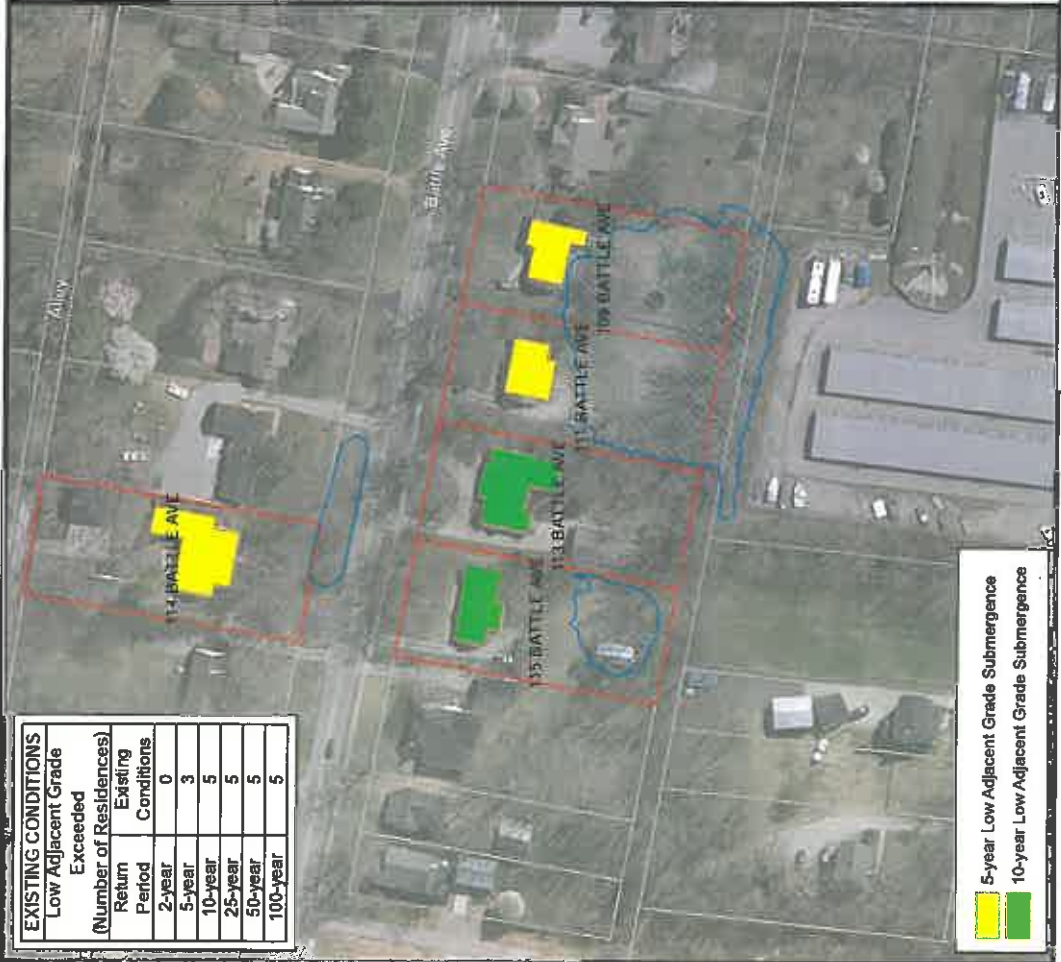


**CITY OF FRANKLIN
 BATTLE AVENUE DRAINAGE STUDY**

NEEL-SCHAFFER
Professional Engineers and Surveyors

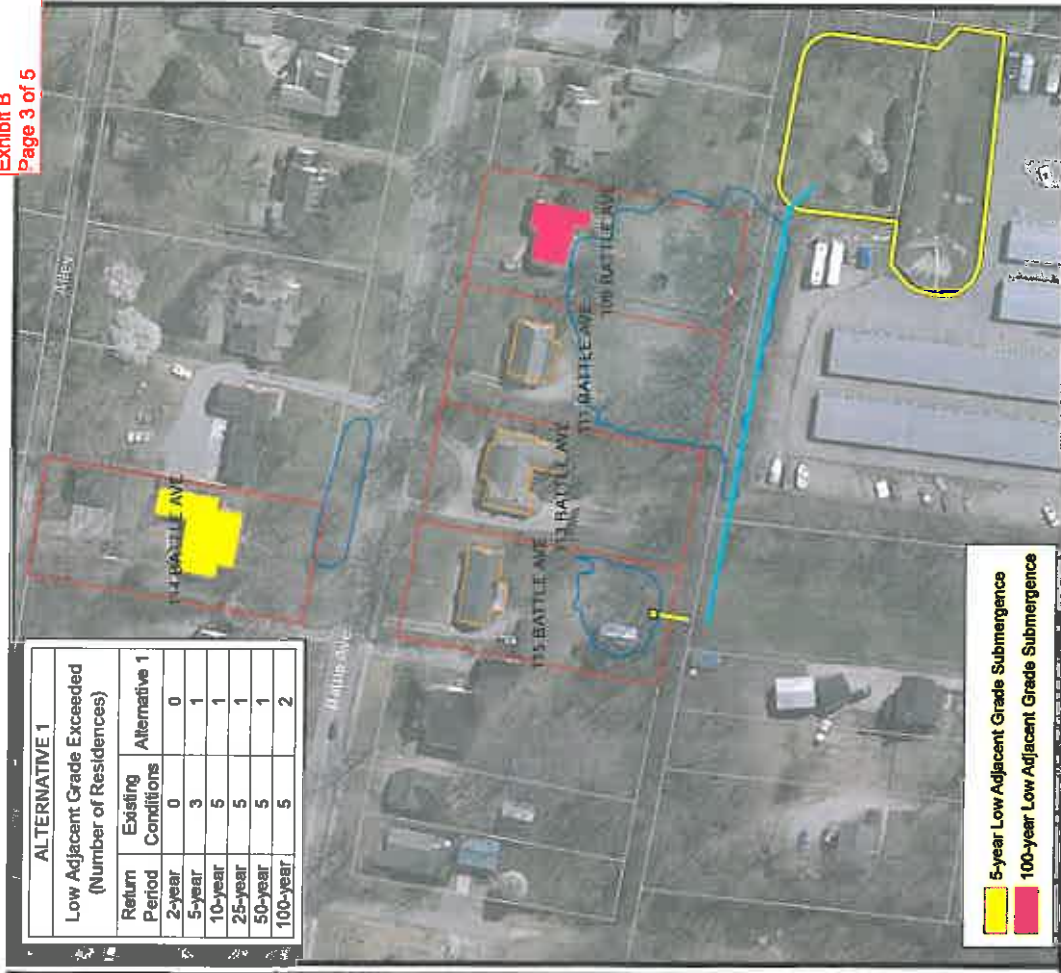
Legend

- Areas of Interest
- Existing Low Areas
- Parcels
- Proposed Detention Basin
- Yard Drain
- Water Quality Swale



EXISTING CONDITIONS	
Low Adjacent Grade Exceeded (Number of Residences)	
Return Period	Existing Conditions
2-year	0
5-year	3
10-year	5
25-year	5
50-year	5
100-year	5

Legend	
	5-year Low Adjacent Grade Submergence
	10-year Low Adjacent Grade Submergence
	Existing Low Areas
	Proposed Detention Basin
	Study Area Structures
	Water Quality Swale
	Areas of Interest
	Yard Drain
	Parcels



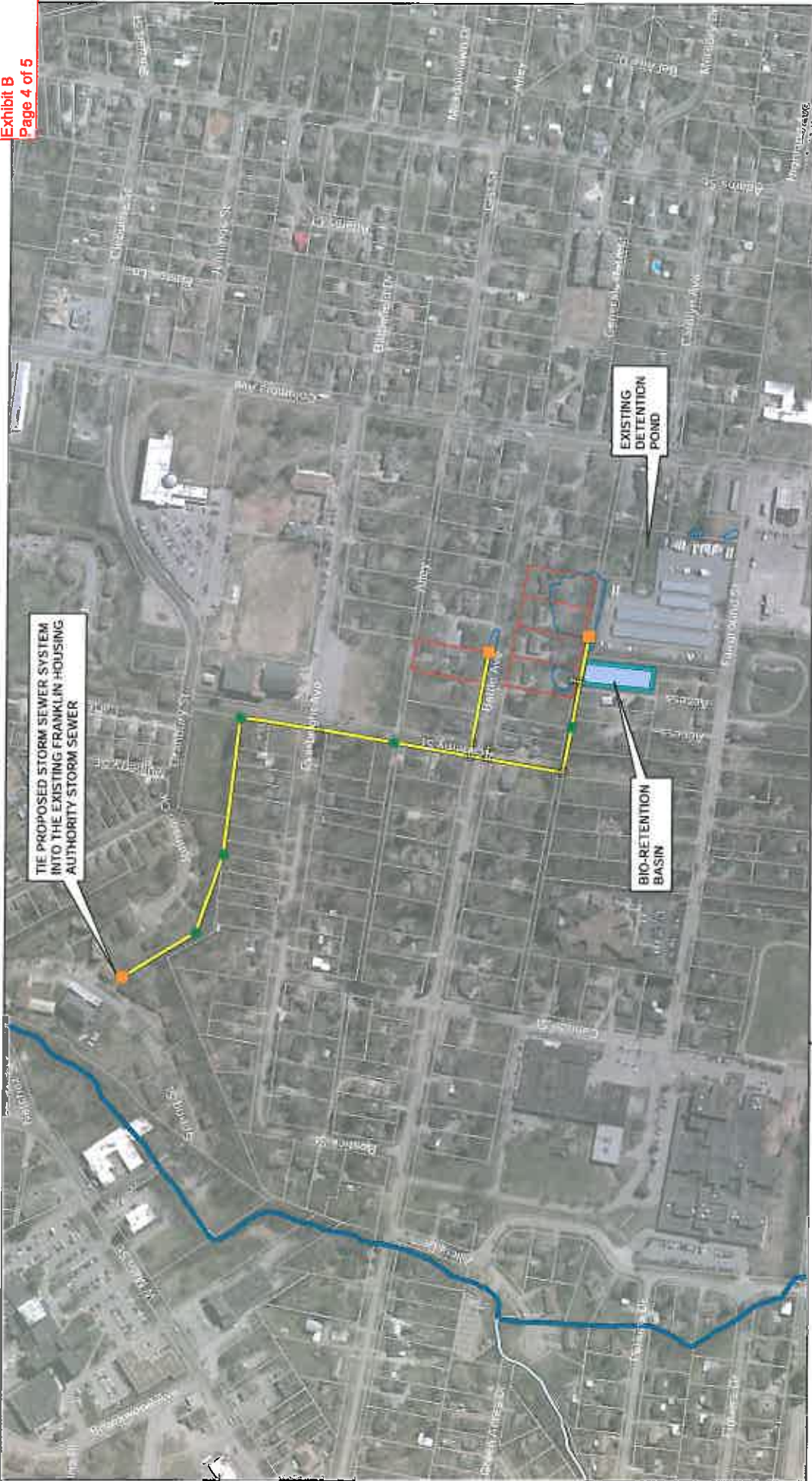
ALTERNATIVE 1		
Low Adjacent Grade Exceeded (Number of Residences)		
Return Period	Existing Conditions	Alternative 1
2-year	0	0
5-year	3	1
10-year	5	1
25-year	5	1
50-year	5	1
100-year	5	2

	5-year Low Adjacent Grade Submergence
	100-year Low Adjacent Grade Submergence

CITY OF FRANKLIN
BATTLE AVENUE DRAINAGE STUDY

BASIN 2
IMPROVEMENT ALTERNATIVE 1
LOW ADJACENT
GRADE EXCEEDANCE

COF 2013-0180
 Exhibit B, Page 3 of 5



TIE PROPOSED STORM SEWER SYSTEM INTO THE EXISTING FRANKLIN AUTHORITY STORM SEWER

EXISTING DETENTION POND

BIO-RETENTION BASIN

**BASIN 2
 DRAINAGE IMPROVEMENTS
 ALTERNATIVE 2**

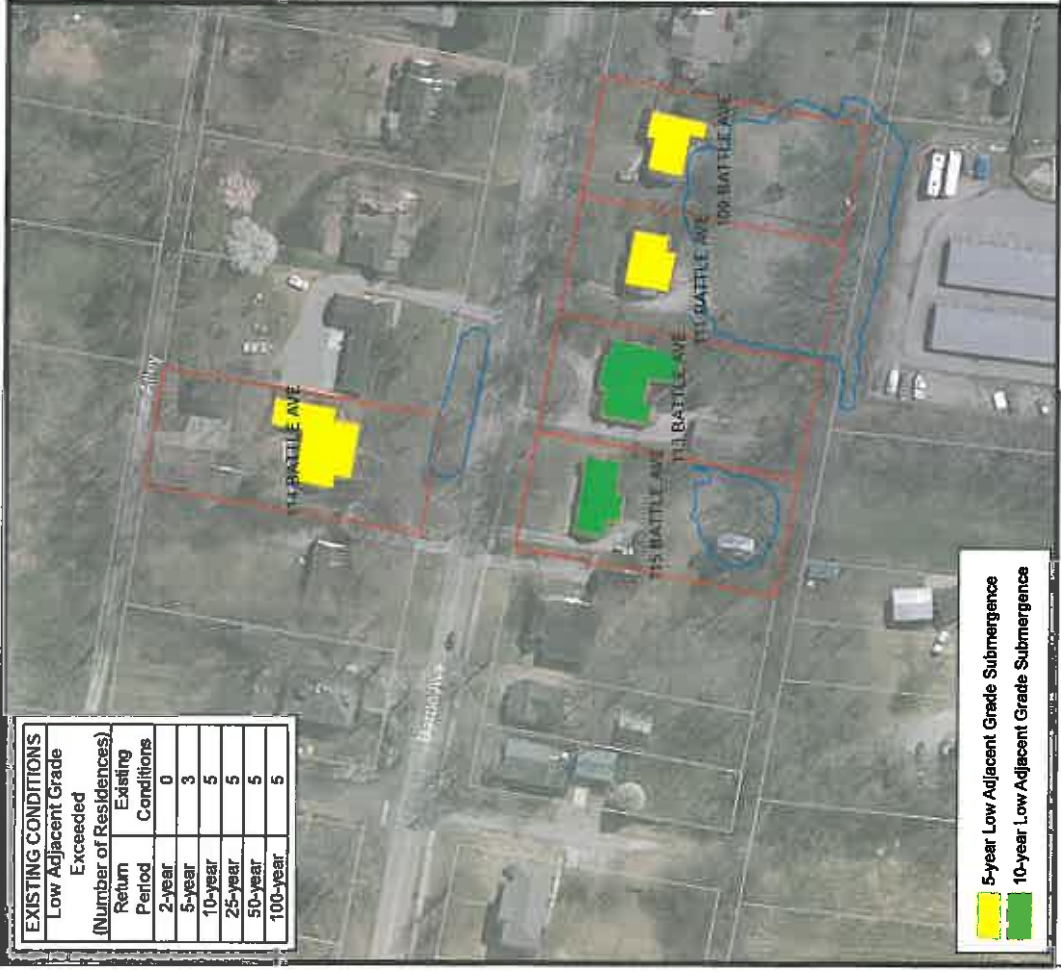
0 50' 100' 200' 300 Feet

**CITY OF FRANKLIN
 BATTLE AVENUE DRAINAGE STUDY**

NEEL-SCHAFFER
 engineers your own world again

Legend

- Storm Sewer
- Storm Sewer Structures
- Proposed Detention Basin
- Area of Interest
- Existing Low Area
- Parcel
- Tribal Groups (Benton, Wood Lake)
- West Hill Branch
- Headwall
- Inlet
- Manhole



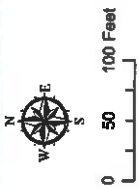
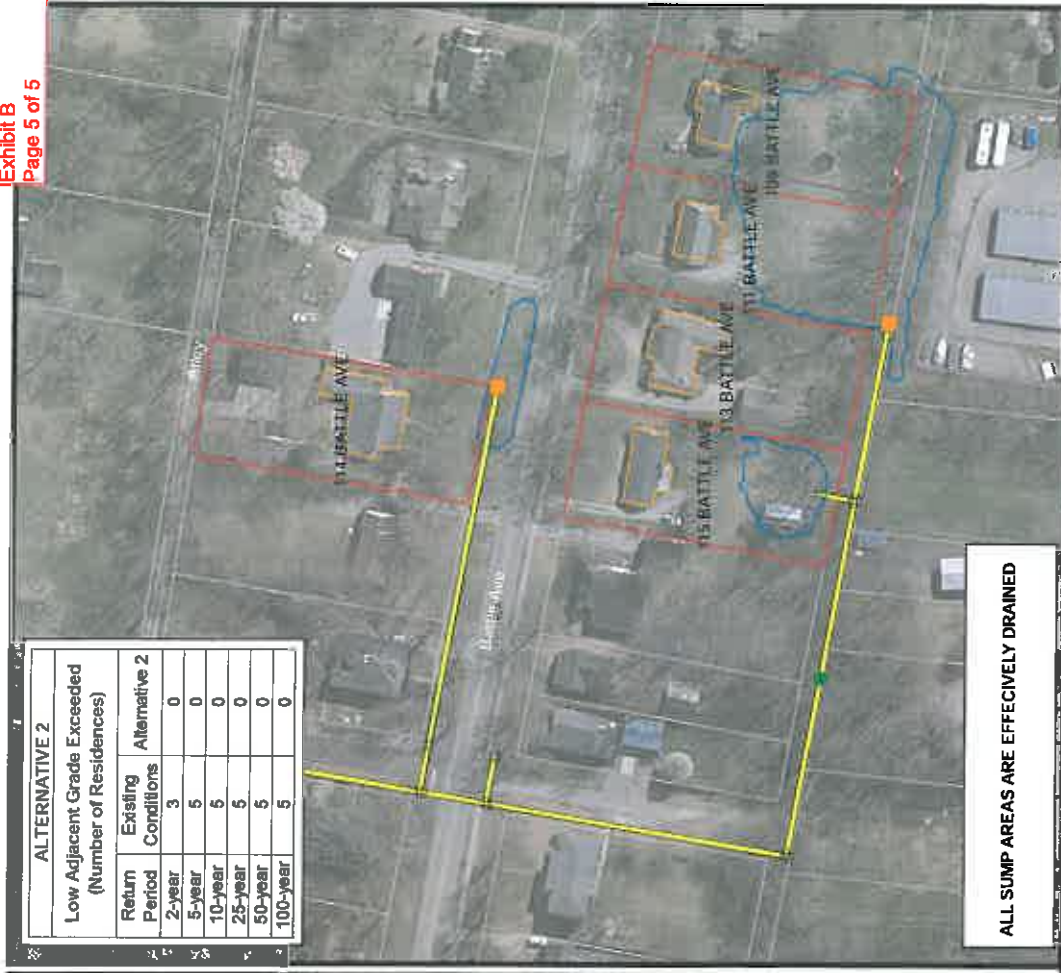
EXISTING CONDITIONS	
Low Adjacent Grade Exceeded (Number of Residences)	
Return Period	Existing Conditions
2-year	0
5-year	3
10-year	5
25-year	5
50-year	5
100-year	5

5-year Low Adjacent Grade Submergence
 10-year Low Adjacent Grade Submergence

- Legend**
- Existing Low Areas
 - Study Area Structures
 - Storm Sewer
 - Areas of Interest
 - Parcels

ALTERNATIVE 2		
Low Adjacent Grade Exceeded (Number of Residences)		
Return Period	Existing Conditions	Alternative 2
2-year	3	0
5-year	5	0
10-year	5	0
25-year	5	0
50-year	5	0
100-year	5	0

ALL SUMP AREAS ARE EFFECTIVELY DRAINED



CITY OF FRANKLIN
 BATTLE AVENUE DRAINAGE STUDY



BASIN 2
 IMPROVEMENT ALTERNATIVE 2
 LOW ADJACENT GRADE EXCEEDANCE
 COF 2013-0180
 Exhibit B, Page 5 of 5