REQUEST FOR BID PROPOSAL

SPRING BRANCH WETLAND FACILITY REPAIRS

TOWN OF SMITHFIELD, NORTH CAROLINA
MAY 2019

TOWN OF SMITHFIELD, NC

REQUEST FOR BID PROPOSAL

TITLE:	**Spring Branch Wetland Facility Repairs**
ISSUE DATE:	**May 27, 2019**
SUBMITTAL DEADLINE:	**1:00 PM on Thursday, July 11, 2019**
ISSUING AGENCY:	**Town of Smithfield, NC**

This RFP is to solicit fee proposals from qualified companies to provide repairs to the Spring Branch Wetlands Facility located immediately south of the Bob Wallace Jaycee Kiddie Park. The facility sustained significant damage from Hurricane Matthew and the Town desires to restore the water quality facility to operating conditions. Upon request a link will be provided to download the following documents:

- Original Construction Plans (2005 Drawings)
- Facility Repair Memorandum (dated 4-11-17)
- COE Permit

SUBMITTAL INFORMATION:

Bids SHALL be received BY MAIL, OR HAND-DELIVERY no later than 1:00 PM on Thursday, July 11, 2019.

The address for mailings is:

Town of Smithfield, NC
Post Office Box 761
Smithfield, NC 27577

The address for hand-deliveries is:

Public Works Department
Town of Smithfield, NC
231 Hospital Road
Smithfield, NC 27577

Bids shall be submitted in a sealed envelope to the attention of Lenny Branch. Bids received after this deadline will not be considered.

SCOPE OF WORK

Awarded Contractor shall restore the Spring Branch Wetland Facility to the original conditions indicated on the original Construction Drawings titled "Spring Branch Stormwater Wetland Facility" as prepared by The Rose Group and dated May 4, 2005. Refer to the April 11, 2017 Repair Memorandum for a description of the damaged locations and repair recommendations. The following is a summary of the intended repairs to restore the facility to its original operating conditions:

1. Concrete Diversion Wall Outlet Pipes: Upstream sediment must be cleaned out to allow the pipes to carry the intended stream flow through the diversion wall and along the normal Spring Branch flow line.

2. Concrete Diversion Wall Inlet Pipes to Wetland Facility: Sediment at the outlet end of the inlet pipes has made these pipes non-functional. This sediment should be removed. Refer to the April 11, 2017 memorandum for specific elevation and depth information that was present during the 2017 site evaluation.

3. Wetland Facility Inlet Weir: The inlet weir was designed to be 2-feet above the normal flow discharge pipes through the stream diversion wall. Based on the 2017 field inspection, the inlet weir was eroded approximately 10-inches which significantly changes the facilities operating conditions. This scope of services item shall be considered a Design-Build. Contractor shall have a new concrete weir designed to replace the original earthen weir at the original width, length and elevation specifications. The concrete weir design shall be submitted to the Town for shop drawing approval.

4. Forebay: The forebay has been inundated with silt. The Contractor shall remove silt as required to restore the forebay contours to the original design conditions. Refer to the April 11, 2017 memorandum for silt depth that was determined during the 2017 site evaluation.

5. Wetland Facility Berm: The berm was breached and requires restoration.

6. Outlet Device: Remove silt from around both the inlet pipes and the outlet device. The treated timber wall for the outlet device needs to be restored to conform with the detail on the original construction plans.

7. Stream Diversion through Wetland Facility: An unintended ditch has developed through the wetland facility. Rock ditch check dams shall be installed at 50-foot intervals to allow for the eventual fill of the ditch section.

8. Plantings: Plantings will not be included within the base lump sum bid for the project. However, replacement of the wetland plantings in conformance with the original construction plans will be included as a bid alternate within the Bid Form.

PROPOSED CONTRACT TIME:

The Town of Smithfield desires to have the project completed within 6-months of authorization to proceed. However, it is recognized that work may be restricted at times based on the elevation of the Neuse River. Time extension will be allowed should flooding within the facility occur.

PROPOSED CONTRACT PAYMENT TYPE:

The method of payment for this contract shall be Lump Sum. Payment will be made monthly based on an estimate of the percentage of project completion. The contractor will provide a project status summary with each payment request.

All questions concerning this RFP should be directed to:

William W. Dreitzler, P.E.
Town Engineer
919-818-2235 (cell)
bdreitzler@dm2engineering.com

IF APPLICABLE, questions may be submitted to the contact above. Responses will be issued in the form of an addendum available to all interested parties as applicable. Questions must be submitted to the person listed above no later than Monday, July 8, 2019. The last addendum will be issued no later than Tuesday, July 9, 2019.

ATTACHMENT A

BID FORM

BID FORM

Bid For: Spring Branch Wetland Facility Repairs
Smithfield, North Carolina – May 2019

Bid To: Town of Smithfield, NC
Post Office Box 761
Smithfield, NC 27577
Attention: Lenny Branch, Public Works Director

Bid From: _____

Address: _____

_____

Telephone: _____

Fax Number: _____

Email: _____

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into a Contract with the Town of Smithfield, NC, hereafter referred to as the OWNER.

2. In submitting this Bid, BIDDER represents that:

   (a) BIDDER acknowledges receipt of the following addenda (as applicable):

Date of Addendum	Addendum Number
_____	_____
_____	_____
_____	_____

   (b) BIDDER has familiarized itself with the nature and extent of the work, site, locality, and all local conditions, Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

3. It is the intent of this Request for Bid Proposal that compensation be on a lump sum basis for all work required to restore the Spring Branch Stormwater Wetland Facility to its

original operating conditions. The exception is the plantings which will be considered as a bid alternate.

4. BIDDER agrees to complete the Work described for the following prices:

LUMP SUM BIDS:

Total Base Bid Lump Sum Cost:

_____

_____

(total lump sum cost – written out)

Plantings Lump Sum Alternate Cost:

_____

_____

(total lump sum cost – written out)

(a) Bids shall include sales tax and all other applicable taxes, permits, fees and inspection fees. Bidder understands that all costs for performing incidental work necessary for the work as shown and specified, shall be included in the bid price.

(b) Bidder acknowledges that they have completed a site evaluation and comprehensive review of the original facility construction plans to prepare the lump sum bid.

5. Bidder understands that the Owner reserves the right to reject any or all bids and to waive formalities in the bidding.

6. On being awarded the Contract, the Bidder will execute Performance and Payment Bonds, each equal to one hundred percent (100%) of the contract price, as security for the faithful performance of the Contract.

7. Certificate of Insurance (COI)

The contractor shall be required to provide the Town of Smithfield with a Certificate of Insurance meeting the minimum requirements of the Town.

8. Project Time

Bidder agrees that the Work will be substantially completed and ready for final payment within 6-months of the notice to proceed.

BID EXECUTION FORM

Respectfully Submitted:

Bidder_____

Doing BUSINESS as a *_____

By_____

Title_____

Address_____

_____

_____

Telephone Number:_____

Attest:_____

(Sealed - if bid is by
a corporation)

_____

(DATE)

* Insert Partnership; Corporation;
or Individual as appropriate.

ATTACHMENT A

REPAIR MEMORANDUM DATED 4-11-19

SMITHFIELD
NORTH CAROLINA

Memo

To: Lenny Branch, Public Works Director

From: Bill Dreitzler, P.E., Town Engineer

Date: April 11, 2017

Re: Spring Branch Stormwater Wetland Facility

Lenny,

I completed a comprehensive field assessment of the Spring Branch Stormwater Wetland Facility (2nd Street) along with Nick Rightmyer, P.E. on Friday, March 10, 2017. The field assessment included verifying key elevations within the system. Based on my field observations and elevation verifications and comparing the findings with the original plans, I can offer my recommendations for restoration. The original plans for the facility were prepared by The Rose Group and dated May 4, 2005. Please consider:

The Spring Branch Wetland Facility was designed for normal flow to be predominately routed through the concrete stream diversion wall through a 10-inch diameter pipe. Existing conditions show that 2 pipes were installed through the stream diversion wall. Two 12-inch pipes through the diversion wall direct stream flow into the wetland facility forebay chamber. These pipe inverts are 6-inches above the pipes that direct normal flow along the Spring Branch stream line. The inlet weir for the wetland facility was originally designed to be 24-inches above the pipes directing normal flow along the Spring Branch. The forebay chamber is the first chamber inside the wetland facility and is very important in that it acts as a stilling basin and allows flows to spread out over an earthen dam prior to entering the wetland water quality pool. The water quality pool has a discharge device releasing the treated water back into the Spring Branch. The following structures require attention:

1. Concrete Diversion Wall Outlet Pipes: Upstream sediment must be cleaned out to allow the pipes to carry the intended stream flow through the diversion wall and along the normal Spring Branch flow line.

2. Concrete Diversion Wall Inlet Pipes to Wetland Facility: Sediment at the outlet end of the inlet pipes has made these pipes non-functional. Based on elevation checks, the sediment in the forebay is at approximately elevation 110.3. The inlet pipes were designed to

discharge at elevation 108.5 with that elevation being the normal pool level in the forebay. The forebay bottom was designed to be at elevation 106.0. The forebay has approximately 4.3-feet of sediment built up within the chamber. This sediment should be removed.

3. Wetland Facility Inlet Weir: The inlet weir was designed to be 2-feet above the normal flow discharge pipes through the stream diversion wall. Elevation checks show that the inlet weir is currently at elevation 109.2. The design elevation was 110.0. Therefore, instead of a 24-inch elevation difference as designed, current conditions have an approximate elevation difference of 14.4-inches. This is a critical aspect to the functionality of the wetland facility and likely a key reason that the Spring Branch is currently being diverted through the wetland facility in lieu of the wetland facility functioning as originally designed. Options should be explored to restore the inlet weir to the proper elevation. I believe the most effective solution is to construct a new concrete inlet weir to replace the original earthen weir. The ability to add 9.6-inches of soil material to the existing earthen weir and achieve stabilization will be problematic. I would recommend consultation with a geotechnical engineer.

4. Forebay: As noted, the forebay has been inundated with silt. The approximately 4.3-feet of silt must be removed to return the forebay bottom elevation to at or near the original 106.0 design elevation. Of note, even the re-routed Spring Branch dich line through the forebay is at elevation 108.2 or 2.2-feet above the design bottom of the chamber.

5. Wetland Facility Berm: The berm wall was breached. The normal pool area for the wetland facility was designed to narrow around the crossing of the aerial sanitary sewer pipe. This design likely assisted in directing what became stream flow through the wetland facility to the breach location. The berm in this location received direct stream flow and eventually eroded and then failed. The breach must be repaired.

6. Outlet Device: Silt around the inlet pipes to the outlet device needs to removed. The outlet pool bottom was designed to be elevation 106.0. The lowest of the inlet pipes was designed to be at elevation 108.25 or 2.25-feet above the existing grade. In addition, the 4"x6" treated timber wall needs to be re-established. The bottom timbers are missing which makes this location the inlet to the outlet device in lieu of the pipes as originally designed.

7. Plantings: The wetland facility will require replanting upon completion of repairs to function as intended.

8. Stream Diversion through Wetland Facility: I would recommend dich check dams be considered at prescribed intervals along the ditch line that has formed through the wetland facility. This will allow the dich section to naturally silt up over time restoring the area to the desired elevation.

I would recommend that the first order of restoration should be the inlet structures. Items 1-4 above. Once the inlet to the wetland facility is functioning as designed then I would recommend repair of the berm wall breach and the outlet device. If you have any questions or wish to discuss the assessment in more detail, please let me know. In addition, please advise if you want to obtain quotes for the restoration work.

END MEMO

ATTACHMENT B

US ARMY CORPS OF ENGINEERS PERMT

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. **SAW-2003-20611** County: **Johnston** U.S.G.S. Quad: **NC-Selma**

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee:	**Town of Smithfield** **Michael Scott**
Address:	**306 South Second Street** **Smithfield, NC 27577**
Telephone Number:	**919-934-2116**
E-mail:	**townhalladmin@smithfield-nc.com**

Size (acres)	**7.2 acres**	Nearest Town	**Smithfield**
Nearest Waterway	**Neuse River**	River Basin	**Neuse**
USGS HUC	**03020201**	Coordinates	Latitude: **35.50923** Longitude: **-78.35075**

Location description: **The project area consists of a constructed stormwater wetland facility that is located west of Second Street, north of Riverside Drive, and south of Church Street in the Town of Smithfield, Johnston County, North Carolina.**

Description of projects area and activity: **This verification authorizes the temporary discharge of fill material into 10 linear feet of stream in order to excavate accumulated sediment that has built up behind a stream diversion wall and the temporary discharge of fill material along 30 linear feet of stream bank in order to repair a breached portion of the stormwater wetland facility's original berm wall that failed during high flows resulting from Hurricane Matthew.**

Applicable Law(s): ☒ Section 404 (Clean Water Act, 33 USC 1344)
☐ Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: **NWP 3. Maintenance**

SEE ATTACHED NWP GENERAL, REGIONAL, AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the enclosed Conditions, your application signed and dated 10/24/2018, and the enclosed plans (hand sketch on the Stormwater Wetland Facility Layout and Grading Plan sheet C1) submitted on 10/26/2018. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management **Morehead City, NC, at (252) 808-2808.**

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Ross Sullivan** at **919-554-4884 ext. 25** or **roscoe.l.sullivan@usace.army.mil**.

Corps Regulatory Official: SULLIVAN.ROSCOE.LEE.III.1259877926 Digitally signed by SULLIVAN.ROSCOE.LEE.III.1259877926 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SULLIVAN.ROSCOE.LEE.III.1259877926 Date: 2018.12.07 17:02:29 -05'00' Date: **12/07/2018**

Expiration Date of Verification: **03/18/2022**

Action ID Number: SAW-2003-20611 **County:** Johnston

Permittee: Town of Smithfield, Michael Scott

Project Name: Spring Branch Stormwater Wetland Facility

Date Verification Issued: 12/07/2018

Project Manager: Ross Sullivan

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

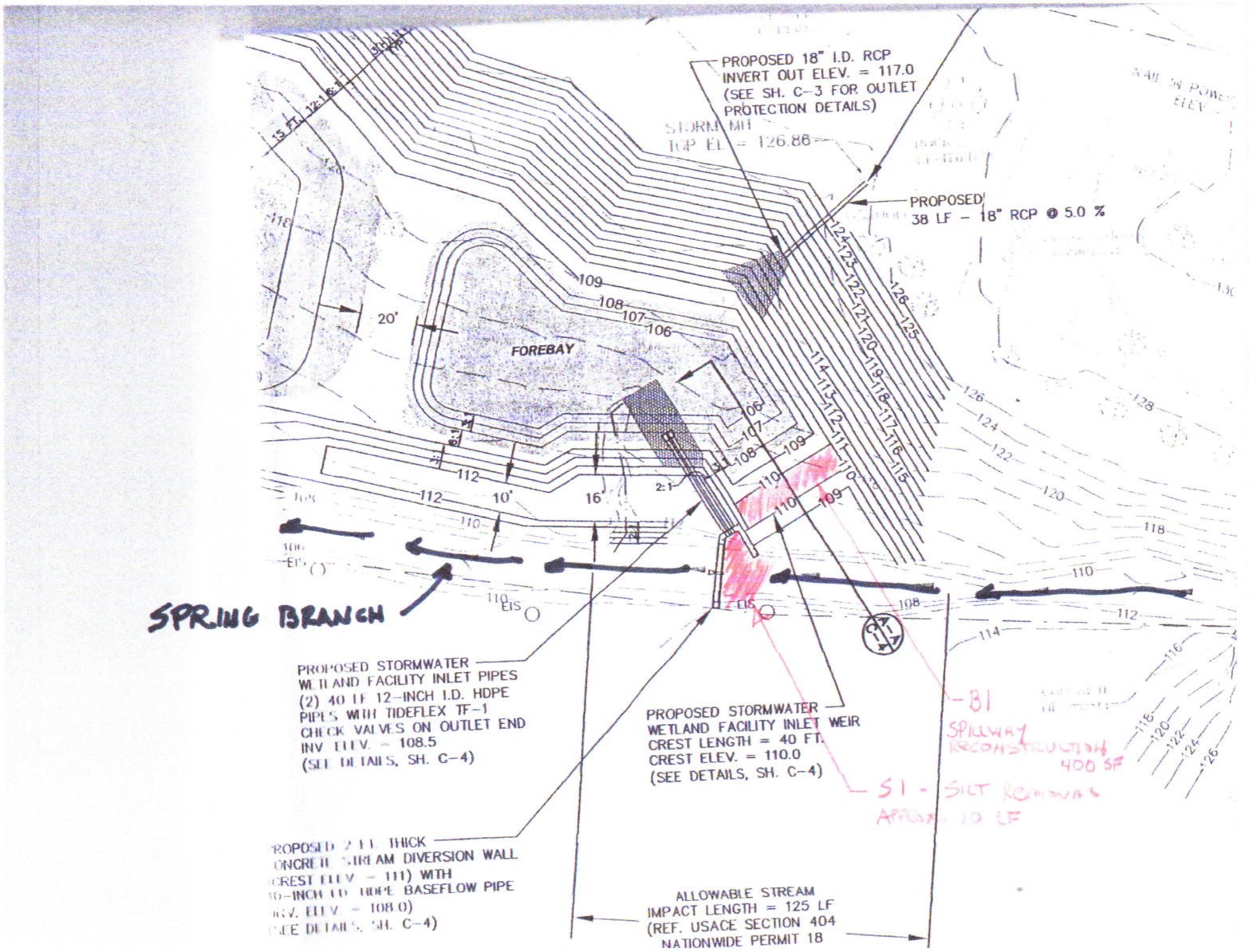
US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: Ross Sullivan
Raleigh Regulatory Office
U.S Army Corps of Engineers
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina 27587
or
roscoe.l.sullivan@usace.army.mil

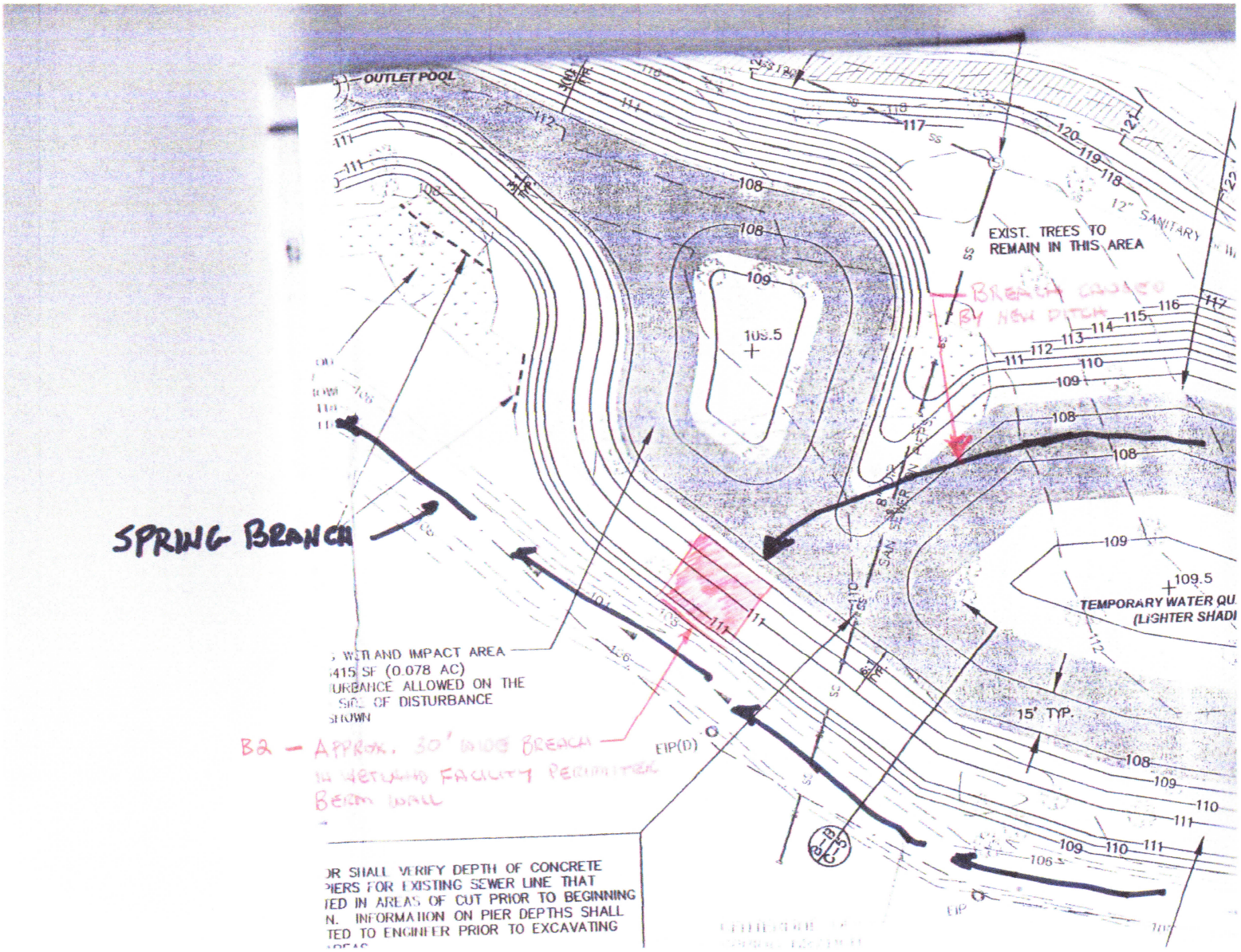
Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee **Date**


PROPOSED 18" I.D. RCP
INVERT OUT ELEV. = 117.0
(SEE SH. C-3 FOR OUTLET
PROTECTION DETAILS)
STORM MH
TOP EL. = 126.86
PROPOSED
38 LF - 18" RCP @ 5.0 %
FOREBAY
20'
10'
16'
2:1
SPRING BRANCH
PROPOSED STORMWATER
WETLAND FACILITY INLET PIPES
(2) 40 LF 12-INCH I.D. HDPE
PIPES WITH TIDEFLEX TF-1
CHECK VALVES ON OUTLET END
INV ELEV. = 108.5
(SEE DETAILS, SH. C-4)
PROPOSED STORMWATER
WETLAND FACILITY INLET WEIR
CREST LENGTH = 40 FT.
CREST ELEV. = 110.0
(SEE DETAILS, SH. C-4)
PROPOSED 2 FT. THICK
CONCRETE STREAM DIVERSION WALL
(CREST ELEV. = 111) WITH
10-INCH I.D. HDPE BASEFLOW PIPE
(INV. ELEV. = 108.0)
(SEE DETAILS, SH. C-4)
ALLOWABLE STREAM
IMPACT LENGTH = 125 LF
(REF. USACE SECTION 404
NATIONWIDE PERMIT 18
S-1
SPILLWAY
RECONSTRUCTION
400 SF
S1 - SILT REMOVAL
APPROX. 10 LF


OUTLET POOL
EXIST. TREES TO REMAIN IN THIS AREA
BREACH CUT BY NEW DITCH
12" SANITARY
8" SANITARY SEWER
105.5
109.5
TEMPORARY WATER QU
(LIGHTER SHADI
15' TYP.
EIP(D)
EIP
SPRING BRANCH
WETLAND IMPACT AREA
415 SF (0.078 AC)
URBANCE ALLOWED ON THE
SIDE OF DISTURBANCE
SHOWN
B2 - APPROX. 30' WIDE BREACH
IN DETENTION FACILITY PERIMETER
BERM WALL
OR SHALL VERIFY DEPTH OF CONCRETE
PIERS FOR EXISTING SEWER LINE THAT
TED IN AREAS OF CUT PRIOR TO BEGINNING
N. INFORMATION ON PIER DEPTHS SHALL
TED TO ENGINEER PRIOR TO EXCAVATING