BID DOCUMENTS FOR
CHELWOOD DR. CULVERT REPLACEMENT
AND
CHADBOURNE AVE. CULVERT REPLACEMENT
(REBID)

PROJECT NO. 2017-026

BID NO. 2401 (REBID)

SET # ___

ENGINEERING DEPARTMENT
635 ALFRED BROWN JR. COURT SW,
POST OFFICE BOX 308
CONCORD, NORTH CAROLINA 28026-0308
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SECTION I

BIDS, AGREEMENTS, AND NOTICES
BID RE-ADVERTISEMENT/INVITATION TO BID

April 24, 2019

Project Title: Chelwood Dr. Culvert Replacement and Chadbourne Ave. Culvert Replacement
Project No. 2017-026

Project Description: The Chelwood Dr. Culvert Replacement and Chadbourne Ave. Culvert Replacement project consists of the removal of two existing sets of culverts, the construction of two double-barrel sets of culverts, and associated services that will include relocation of water mains including a fire hydrant, relocation of gravity sewer mains including the construction of a temporary sewer lines, coordination with utility agencies on other utility adjustments by others, roadway pavement reconstruction, and other appurtenances along Chelwood Drive and Chadbourne Avenue, Concord NC.

Sealed Bids will be received by the City of Concord (Owner) at the address below. Please submit notarized bids in a sealed envelope by the bid opening time and date. All Bids must be in accordance with the Bidding Documents on file with the City of Concord Engineering Department. Bidders must be licensed contractors in the State of North Carolina. Bids will be received on a unit price basis. A Bid Bond must accompany each bid. The Successful Bidder will be required to furnish a Construction Performance Bond and a Construction Payment Bond as security for the faithful performance and the payment of all bills and obligations arising from the performance of the Contract. Contractor and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

Enrique A. Blat, PE
Deputy City Engineer

Engineer: City of Concord Engineering Department
Alfred M. Brown Operations Center
635 Alfred Brown Jr Court SW
P O Box 308, Concord, NC 28026-0308

Contractors wishing to bid on this project must register to bid by sending an email to Carolina Garcia-Zaragoza, P.E. at gzaragozac@concordnc.gov. Registration for bidding requires the name of the company, physical address, email address, and telephone number. All communication regarding this bid will be done through email.

Bid documents are available free of charge from the City of Concord website at: https://www.concordnc.gov/Departments/Finance/Purchasing/RFPs-and-Bids
**Technical questions:** Contact Carolina Garcia-Zaragoza, P.E., (gzaragozac@concordnc.gov) 704.920.5425

**Bid Due Date:** May 29, 2019 at 10:00 PM

**Location:** City of Concord, Alfred M. Brown Operations Center
635 Alfred Brown Jr Court SW, Concord, NC 28026
Conference Room C
(See attached map/directions)

**MAP AND DIRECTIONS TO CITY OF CONCORD ALFRED M BROWN OPERATIONS CENTER**

**Directions from Charlotte**
- Take I-77 north to I-85 north from Charlotte to Concord.
- From I-85 north, take exit 49 to the right towards Lowe’s Motor Speedway.
- At the Lowe’s Motor Speedway, turn left onto Highway 29 (Concord Pkwy) north.
- Keep going north while you pass the Wal-Mart shopping center on your right.
- Turn right at the light at the Chevrolet dealership onto Cabarrus Avenue.
- Turn right at the next traffic light at the Walgreens onto Hwy 601 South (bypass). (Hwy 601 S is also Warren C. Coleman Boulevard).
- Go straight through two traffic lights at Old Charlotte Road and Wilshire Avenue.
- Pass the Bi-Lo shopping center on your left.
- Turn right at the next traffic light at Alfred Brown Jr Court SW (green & white sign on right for the City of Concord Alfred M. Brown Operations Center).
- You will be on the entrance road into our complex.
- Follow signs to the left to Visitor Parking.
• Proceed to the front desk at the Administration Building and sign in with the receptionist.

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS. Terms used in these Instructions to Bidders are meanings assigned to them in the General Conditions and the Supplementary Conditions. An additional term is defined as follows:

Successful Bidder - The lowest, qualified, responsible, and responsive Bidder to whom Owner (on the basis of Owner's evaluation as herein provided) makes an award.

2. COPIES OF BID DOCUMENTS. Bid Documents may be obtained from the Owner via the link below for the City of Concord’s website.

<table>
<thead>
<tr>
<th>Complete set of Bid Documents</th>
<th>Charge</th>
<th>Free download</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>[link to website]</td>
</tr>
</tbody>
</table>

Partial sets of Bid Documents will not be issued in response to requests by subject matter.

Complete sets of Bid Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misrepresentations resulting from the use of incomplete sets of Quoting Documents.

Owner and Engineer, in making copies of Quoting Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS. To demonstrate qualifications to perform the Work, Bidder may be required to submit written evidence on financial data, previous experience, present commitments, and other such data as may be requested by Owner or Engineer. Each Bid must contain evidence of Bidder’s qualification to do business in the state where the Project is located, or Bidder must agree to obtain such qualification prior to award of the Contract.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE. It is the responsibility of each Bidder, before submitting a Bid, to (a) thoroughly examine the Contract Documents, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work, (c) consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work, (d) study and carefully correlate Bidder’s observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors, or discrepancies discovered by Bidder in the Contract Documents.

4.02. Underground Facilities. Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site are based upon information and data furnished to Owner and Engineer by owners of such underground facilities or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.03. Additional Information. Before submitting a Bid, each Bidder will, at Bidder’s own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and
underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

On request 24 hours in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the site to its former condition upon completion of such explorations. Arrangements for site visits shall be made by calling the office of the Director of Engineering for the City of Concord at 704.920.5425.

4.04. Easements. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise specified in the Contract Documents.

4.05. Unit Price Contracts. Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid schedule by examination of the site and a review of the drawings and the specifications, including the addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done.

4.06. Bidder’s Representation. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement concerning examination of the Contract Documents and the site, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. INTERPRETATIONS AND ADDENDA. All questions about the meaning or intent of the Quoting Documents and the Contract Documents shall be submitted to Owner in writing. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Quoting Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only answers issued by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. BID SECURITY. Each Proposal must be accompanied by a deposit equal to 5% of the net price bid. This deposit may consist of cash, or a Cashier's Check issued by, or a Certified Check drawn on a Bank or Trust Company authorized to do business in North Carolina, or on a Bank insured by the Federal Deposit Insurance Corporation, or a U.S. Money Order, payable to the City of Concord or 5% Bid Bond in the form required by G.S. 143-129 as amended, issued by an Insurance Company authorized to do business in North Carolina, said deposit to be retained in the event of failure of the successful bidder to execute a formal contract within ten (10) days after award or to give satisfactory surety required.

The Bid security of the Successful Bidder (if so required) will be retained until such Bidder has executed the Agreement, furnished the required contract security (if so required), and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within the number of days set forth in the Bid Form, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security (if so required) of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the
Agreement or the day after the last day the Bid remain subject to acceptance as set forth in the Bid Form, whereupon Bid security furnished by such Bidders will be returned. Bid security accompanying Bid which are deemed by Owner to be noncompetitive will be returned within 7 days after the designated Bid opening.

7. CONTRACT TIMES. The numbers of calendar days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Times) are set forth in the Bid Form.

8. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.

9. SUBSTITUTES OR "OR-EQUAL" ITEMS. Bidder’s attention is directed to Article 6.5 of the General Conditions concerning substitutes and "or-equal" items. Where an item or material is specified by a proprietary name, it is done for the purpose of establishing a basis of quality and not for the purpose of limiting competition. The Engineer's intent is to consider alternative products which have the desired essential characteristics. The Engineer will consider any such products offered. Requests for acceptance of alternative products shall be made through Bidders quoting as prime Contractors. Acceptances for substitutions will not be granted directly to suppliers, distributors, or subcontractors.

Pursuant to Section 133-3, General Statutes of North Carolina, the following procedures shall be used:

Bidders desiring to submit alternative product proposals for prior acceptance of the Engineers shall submit, in writing, such proposals from n/a, until n/a. Applications received after this time will not be reviewed. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and test data, and other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment, or other work that incorporation of the substitute would require shall be included. The Engineer shall consider and either accept or reject all alternative product proposals submitted.

If, by the close of the fifth day prior to the deadline for receiving Bid, the Engineer has accepted any alternative product proposals, the Quoting Documents shall be modified to include the alternative products. The Engineer shall publish the modification in an Addenda at least 5 days prior to the deadline for receiving Bids. The Engineer's decision of acceptance or rejection of a proposed substitute shall be final.

10. SUBCONTRACTORS, SUPPLIERS, AND OTHERS. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within 3 days after the opening submit to Owner the List of Subcontractors completed with all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. The list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person, or organization, if requested by Owner. If Owner or Engineer after due investigation has reasonable objection to any proposed Subcontractor, Supplier, or other person or organization, Owner may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in the Bid.

All Subcontractors shall be a licensed utility contractor in the State of North Carolina.

11. BID FORM. The Bid Form is bound in the Quoting Documents and shall not be removed therefrom. Bid Forms must be completed in ink.

Bids by corporations must be executed in the corporate name by the president or vice-president (or other corporate officer accompanied by evidence of authority to sign for the corporation). Bids by partnerships
must be executed in the partnership name and signed by a partner. Bids by joint ventures shall be signed by each participant in the joint venture or by a representative of the joint venture accompanied by evidence of authority to sign for the joint venture.

The names of all persons signing shall be legibly printed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation without disclosing his principal may be held to be the Bid of the individual signing. When requested by Owner, evidence of the authority of the person signing shall be furnished.

All blanks in the Bid Form shall be filled. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid", "No Charge", "No Change", or other appropriate phrase shall be entered.

The Bid shall contain an acknowledgment of receipt of all Addenda; the numbers and dates of which shall be filled in on the Bid Form.

No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, Owner may require the Bidder to identify any alteration so initialed.

11.01. Bid Pricing. The Bidder shall complete the schedule of unit prices included in the Bid Form and shall accept all fixed unit prices listed therein.

The total Bid will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid. The final Contract Price will be subject to adjustment according to final measured, used, or delivered quantities as provided in Article 9.7 of the General Conditions, and the unit prices in the Bid will apply to such final quantities except that unit prices will be subject to change by Change Order as stipulated in the Supplementary Conditions.

11.02. Contingency. The Contingency is to be added to the Bid price and is to be used for minor change order items. If the Contingency is to be used, a scope of work and price would be negotiated. The Contingency is for the sole use of Owner. A change order will be issued to delete any unauthorized portion of the Contingency.

12. SUBMISSION OF BIDS. Bids shall be submitted at the time and place indicated in the Invitation to Bid, or the modified time and place indicated by Addendum. Bids shall be enclosed in a sealed envelope or wrapping, addressed to:

The City of Concord
Enrique Blat, PE, Deputy City Engineer
P.O. Box 308
635 Alfred Brown Jr Court SW
Concord, North Carolina 28026-0308

Bids shall be marked with the name, license number, and address of the Bidder and shall be accompanied by the Bid security (if required) and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Each Bid envelope shall be identified on the outside with the words:

“BID FOR CHELWOOD DR. CULVERT REPLACEMENT & CHADBOURNE AVE. CULVERT REPLACEMENT – PROJECT 2017-026”
Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

**One copy of all pages of the BID FORM must be submitted with the Bid, as well as a Bid Bond and Debarred Firms Certification Form.**

Oral, telephone, facsimile, or telegraph Bids are invalid and will not receive consideration.

No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

A conditional or qualified Bid will not be accepted.

13. **MODIFICATION AND WITHDRAWAL OF BIDS.** Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

If, within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security (if any) will be returned. Thereafter, that Bidder will be disqualified from further quoting on the Work to be provided under the Contract Documents.

14. **OPENING OF BIDS.** Bids will be opened at the office and at the discretion of the Director of Engineering and read aloud.

The procedure for opening Bids will follow guidelines issued by the State Building Commission dated December 10, 1990, and endorsed by the Consulting Engineers Council of North Carolina.

15. **BIDS TO REMAIN SUBJECT TO ACCEPTANCE.** All Bids will remain subject to acceptance for the number of days set forth in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the security (if any) prior to that date.

16. **AWARD OF CONTRACT.** Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
If the Contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of Owner. If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within the number of days set forth in the Bid Form. The evaluation of Suppliers' or manufacturers' data submitted with the Bid, or submitted upon request prior to the Notice of Award, will include consideration of the following:

- Owner-required inventory of spare parts.
- Building design changes which would be required to accommodate the proposed materials and equipment.
- Installation requirements and related engineering, training, and operating costs.
- Experience and performance record of the Supplier or the manufacturer.
- Maintenance and frequency of inspections required to assure reliable performance of the equipment.
- Suppliers' or manufacturers' service facilities and availability of qualified field service personnel.
- Efficiency and related operating expense during the anticipated useful life of the equipment.

17. **CONTRACT SECURITY.** The General Conditions set forth Owner's requirements as to Performance and Payment Bonds (required). These Bonds shall be delivered to Owner with the executed Agreement.

18. **SIGNING OF AGREEMENT.** When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by two unsigned counterparts of the Agreement with all other written Contract Documents attached. Within the number of days set forth in the Bid Form, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds and power of attorney. Within 30 days thereafter, Owner shall execute all copies of the Agreement and other Contract Documents submitted by Contractor (Successful Bidder); shall insert the date of contract on the Agreement, Bonds, and power of attorney; and shall distribute signed copies as stipulated in the Agreement.

Should the Owner not execute the Contract within the period specified, the Successful Bidder may, by written notice, withdraw his signed Contract. Such notice or withdrawal shall be effective upon receipt of the notice by the Owner.

19. **SALES AND USE TAXES.** Provisions for sales and use taxes, if any, are set forth in the Supplementary Conditions.

20. **RETAINAGE.** Provisions concerning retainage are set forth in the Agreement.

21. **LAWS AND REGULATIONS.** Modifications, if any, to the General Conditions concerning Laws and Regulations are set forth in the Supplementary Conditions. Additional provisions, if any, concerning Laws and Regulations are set forth in the Agreement.

21.01. **Collusive Bidding.** In accordance with Section 112(c) of Title 23 USC, and G.S. 75-5(b)(7) of the State of North Carolina, the Contractor (Bidder), by submission and execution of this bid or Bid, certifies that he has not entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding or quoting in connection with his Bid on this project.

End of Section
DEBARRED FIRMS CERTIFICATION FORM

Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement
Project No. 2017-026

The undersigned hereby certifies that the firm of ________________________________ has not been suspended by the State of North Carolina or any agency or department thereof for conviction or indictment or any of the offenses enumerated in G.S. 133-27 nor will award subcontracts of any tier to firms that have been suspended for conviction or indictment of any of the offenses enumerated in G.S. 133-27.

__________________________
Name of Firm

ATTEST ____________________________           (SEAL)

Signature of Authorized Official

________________________________
Title

Sworn and subscribed before me this

_____ day of ____________, 2019

________________________________
Notary Public
EXHIBIT A – BID FORM

PROJECT IDENTIFICATION:

Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement
Project No. 2017-026

THIS BID IS SUBMITTED TO:

Enrique Blat, PE, Deputy City Engineer
City of Concord
635 Alfred Brown Jr Court SW
P.O. Box 308
Concord, North Carolina 28026-0308

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents within the specified time and for the amount indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. Bidder accepts all of the terms and conditions of the Invitation to Bid and the Instructions to Bid, including without limitation those dealing with the disposition of the Bid security (if security is required by the City Manager). This Bid will remain subject to acceptance for 90 days after the day designated for reception of Bids. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Quoting Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents that:

   a. Bidder has examined copies of all the Quoting Documents and of the following Addenda (receipt of all which is hereby acknowledged):

      No. __________________________ Dated________________

      No. __________________________ Dated________________

      No. __________________________ Dated________________

      No. __________________________ Dated________________

      No. __________________________ Dated________________

      No. __________________________ Dated________________

   b. Bidder has visited the site and become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.

   c. Bidder is familiar with and has satisfied itself as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, performance, and furnishing of Work.
d. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have provided by the owner and under the conditions normally used and identified in the Supplementary Conditions and Special Conditions as provided in Paragraph 4.2.1 of the General Conditions. Bidder accepts the determination set forth in the Supplementary Conditions and Special Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in Paragraph 4.2 of the General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder’s purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Quoting Documents with respect to underground facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

e. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.

f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

g. Bidder has given Engineer written and verbal notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid Bidder has not solicited or induced any person, firm, or corporation to refrain from quoting; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

4. Bidder will complete the Work for the following unit prices. Quantities indicated are estimated and not guaranteed; they are solely for comparing Bids and establishing the initial Contract Price. Final payment will be based on actual quantities.
# EXHIBIT A – BID FORM

Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement  
Project No. 2017-026

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
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**Watermain Relocation**

**Sanitary Sewer Relocation**

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<th>Item</th>
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**TOTAL BASE COST** $______________________

**10% CONTINGENCY** $______________________

**TOTAL COST** $______________________

5. Bidder agrees that all work will be completed and ready for final payment in accordance with Paragraph 14.13 of the General Conditions within 365 days from the date of notice to proceed.

6. Liquidated damages are $250.00 per each day past the contract completion date.

7. Communications concerning this Bid shall be sent to Bid at the following address:

NAME: _______________________________________
ADDRESS: _______________________________________

P.O. BOX: _______________________________________

CITY: ________________________________

STATE: _______________________________________

ZIP: _______________________________________

8. The terms used in this BID, which are defined in the General Conditions (Section II), have the meanings assigned to them in the General Conditions.

SIGNATURE OF BIDDER: __________________________________________________

Contractor's License Number ________________________________________________

License Expiration Date _____________________________________________________

If an Individual

By ________________________________________________________________

   (signature of individual)

doing business as ______________________________________________________

Business address _______________________________________________________

Phone No. ___________________________________________________________

Date ____________________________, 20____

   ATTEST _______________ TITLE

If a Partnership

By ________________________________________________________________

   (firm name)

   ____________________________ __________________________

   (signature of general partner)

Business address _______________________________________________________

Phone No. ___________________________________________________________

Date ____________________________, 20____

   ATTEST _______________ TITLE
If a Corporation

By ___________________________ (corporation name)

By ___________________________ (signature of authorized person) (title)_______________________

Business address _____________________________

Phone No. _____________________________

Date _____________________________, 20_____

ATTEST ______________ TITLE ______

(Seal)

If a Joint Venture (Other party must sign below.)

By (name)__________________________

Contractor's License Number__________________________

License Expiration Date ____________________________

If an Individual

By ___________________________ (signature of individual)

doing business as ____________________________

Business address _____________________________

Phone No. _____________________________

Date _____________________________, 20_____

ATTEST ______________ TITLE ______

If a Partnership

By ___________________________ (firm name)

_____________________________________________(signature of general partner)
Business address ____________________________________________________________________

Phone No. ________________________________________________________________________

Date ____________________________________________________________________________, 20_____

ATTEST ____________ TITLE _______

If a Corporation

By __________________________________________________________

By ___________________________ (corporation name)

By ___________________________ (signature of authorized person)(title)________________________

Business address ____________________________________________________________________

Phone No. ________________________________________________________________________

Date ____________________________________________________________________________, 20_____

ATTEST ____________ TITLE _______

(Seal) circle
EXHIBIT B – STANDARD FORM OF PERFORMANCE BOND

Date of Execution of this Bond

Name and Address of Principal (Contractor)

Name and Address of Surety

Name and Address of Contracting Body

Amount of Bond

Contract That certain contract by and between the Principal and the Contracting Body above named dated for

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above-named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain contract with the Contracting Body, identified as shown above and hereto attached;

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise, to remain in full force and virtue.
STANDARD FORM OF PERFORMANCE BOND: (Continued)

THIS PERFORMANCE BOND is made and given pursuant to the requirements and provisions of Section 129 of Chapter 143 of the General Statutes of North Carolina and pursuant to Article 3 of Chapter 44-A of the General Statutes of North Carolina, and each and every provision set forth and contained in Section 129 of Chapter 143 and in Article 3 of Chapter 44-A of the General Statutes of North Carolina is incorporated herein, made a part hereof, and deemed to be conclusively written into this Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals as of the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned and representative, pursuant to authority of its governing body.

WITNESS:

Principal (Name of individual and trade name, partnership, corporation, or joint venture)

(Proprietorship or Partnership)
Printed Name

BY _____________________________ (SEAL)
Printed Name _____________________________

TITLE _____________________________
(Owner, Partner, Office held in corporation, joint venture)

ATTEST: (Corporation)

BY _____________________________
Printed Name _____________________________

TITLE _____________________________
(Corporation Secretary or Assistant Secretary Only)

Surety (Name of Surety Company)

BY _____________________________
Printed Name _____________________________

TITLE _____________________________
(Attorney in Fact)

(Address of Attorney in Fact)
EXHIBIT C – PROJECT SPECIAL PROVISIONS

Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement
Project No. 2017-026

1) Contractor shall utilize the latest edition of NCDOT Standard Specifications & Standard Drawings for Roads and Structures, the City of Concord Technical Standards, and Water & Sewer Authority of Cabarrus County Technical Standard specifications, the most restrictive requirement shall apply unless otherwise noted. NCDOT Article Numbers in the Bid Form and these Project Special Provisions reference the NCDOT Standard Specifications for Roadways and Structures.

2) Boring logs are available in Appendix A. Boring log locations are shown in the Construction Plans. It should be noted that the data provided does not reflect the variations in subsurface conditions which could exist between boring locations and/or unexplored areas of the site.

3) Hours of work at between 7:00 am – 6:00 pm; Monday through Friday.

4) Contractor shall sequence the work so that the culvert replacement at Chelwood Dr. is completed first. The 6” and 4” waterlines and the electric work at this location shall be completed, and Chelwood Dr. shall be open to traffic before work at the Chadbourne Ave. location starts.

5) Culvert sills at both Chelwood and Chadbourne locations will be furnished with the culvert units as shown in the project plans. The Contractor shall include all the costs associated with concrete sills in the culvert price.

6) Concrete headwalls at Chadbourne will be furnished with the culvert units as shown in the project plans. The Contractor shall include all the costs associated with concrete headwalls in the culvert price.

7) Precast modular block headwalls at Chelwood will be paid for in Line Item #12 SP-08 Precast Modular Block Retaining Wall.

8) The Contractor shall include in asphalt prices the cost of milling to tie into existing asphalt according to the Utility Cut Replacement Detail shown in the project plans.

9) The Contractor shall be responsible for complying with the current plumbing requirements associated with reestablishing the sewer lateral connections and obtaining all necessary plumbing permits, in accordance with the most current version of the North Carolina Plumbing Code. The plumbing requirements shall include, but not be limited to, materials, equipment, labor, and workmanship. Any cost related to this requirement shall be included in Bid Form Item #40.

10) A $2,000 Landscaping Allowance (Item #31) is to be set aside and used to replace existing ornamental shrubs as directed by the City of Concord.

11) A new underground electrical cable will be installed by others along Chelwood Dr. on top of the proposed culvert in order to temporarily abandon the underground electrical cables on Chadbourne Ave. during the culvert construction at that location. Contractor shall coordinate with the City of Concord Electric Systems.

12) The Contractor shall include the cost of any coordination and cooperation of utilities in his bid. No additional compensation shall be allowed for delays or inconvenience sustained by the Contractor due to utility relocation or adjustments. No additional payment will be made for re-mobilization required by the utility’s failure to relocate a utility at the request of the Contractor.

13) The Contractor shall comply with the conditions established by the North Carolina Department of Environmental Quality in the 401 Water Quality Certification approval letter included in Appendix B. All costs generated by this requirement shall be included in the Contractor’s bid.
14) **Financial Responsibility, Sedimentation Pollution Control Act:** If this project is subject to the “North Carolina Department of Environmental Health and Natural Resources Sediment Pollution Control Act”, the City has already acquired the permit. The Contractor, upon recommendation of award shall complete Part B of the Financial Responsibility/Ownership form provided by the City. The City will then transfer financial responsibility of the erosion control permit to the Contractor. The City of Concord will pay the cost of the application fees. The Contractor will be responsible for any fines levied for violation of the approved erosion control plan.

15) This project does not require an Erosion Control permit under the “North Carolina Department of Environmental Health and Natural Resources Sediment Pollution Control Act”.

**SP-01 – TRAFFIC CONTROL**

**1.0 DESCRIPTION**

**Beginning Work and Street Closings:** The Contractor is responsible for notifying the Concord Department of Transportation for any work where the number of travel lanes is reduced from normal conditions.

The Contractor shall install advance warning signs for the Project. These signs shall be in place for one week before construction activity begins. The Contractor shall begin construction activity on a street on the scheduled date for the closing of the travel lane.

**Traffic Control Plan:** Traffic control will be performed by the Contractor based upon the Traffic Control Special Provisions. The Traffic Control Special Provisions may refer to plan sheets for major work items or details, or both.


The Contractor shall maintain the traffic control as described herein unless the Contractor submits an alternate traffic control plan to the Engineer and it is approved by the Engineer. The Engineer may direct the Contractor to modify the traffic control if, in the Engineer’s opinion, traffic is not moving safely or efficiently.

Traffic Control Phasing for this project shall be in accordance with the Traffic Control Plans. The Contractor shall adhere rigidly to these plans. The standards are the minimum required. Additional signs, cones, drums, barricades and warning devices may be used, but at no time will less than what is specified on the plans or in the standards be acceptable.

**Maintenance of Traffic:** The Contractor shall maintain all travel lanes in accordance with the Traffic Control Plan sheets.
In areas of drop-offs and low shoulders, the Contractor shall backfill up to the edge and elevation of the existing pavement.

The Contractor will be required to maintain ingress and egress to all businesses and dwellings, and easy access to fire hydrants.

The Contractor shall provide adequate drainage under driveways and within the Project area for the duration of the Project.

The Contractor shall mark all hazards within the Project limits with well-maintained signs, barricades, warning and/or channelizing devices.

**Traffic Control Devices:** The Contractor shall furnish, install, operate, relocate, maintain and remove all temporary traffic control devices necessary for controlling traffic in accordance with the Traffic Control Plans and standards. The Contractor shall notify Engineer regarding conflicting permanent signs. Only Concord Department of Transportation personnel shall install, remove or relocate any permanent signs within the right-of-way. All construction signs and barricades shall remain in place until the appropriate permanent signs and pavement markings are installed.

**Equipment and Material Storage:** During periods of construction inactivity, all construction materials and equipment shall be stored by the Contractor. The right-of-way or temporary project easement may be used for this purpose, but equipment and materials must be placed safely 10 or more feet away from any open travel lane. It is recommended that all construction equipment and materials be stored on private property, which is posted against trespassing. It is the responsibility of the organization performing the work to obtain the permission to use a property for this purpose.

**Excavation and Trenches:** Excavations and trenches that cannot be properly backfilled and patched prior to the end of the workday shall be secured.

### 2.0 MEASUREMENT

There will be no separate measurement made for Traffic Control.

### 3.0 PAYMENT

Traffic Control will be paid at the lump sum price for “Traffic Control”. This payment will be full compensation for all elements of work required to complete the Project as specified.

Partial payments will be made as follows:

- 25% of the lump sum price on the first partial payment estimate made after any work has been performed on the item of “Traffic Control”.
- 25% of the lump sum price on the first partial payment after work is 25% complete.
- 25% of the lump sum price on the first partial payment after work is 50% complete.
- 25% of the lump sum price on the first partial payment after work is 100% complete.

Payment will be made under:
SP-02, COMPREHENSIVE GRADING

1.0 DESCRIPTION

This item shall include all elements of work covered by the referenced NCDOT Specifications and the numbered Additional City Specifications provided herein.

NCDOT Specifications
200, “Clearing and Grubbing”
225, “Roadway Excavation”
235, “Embankments”
240, “Ditch Excavation”
250, “Removal of Existing Pavement”
260, “Proof Rolling”
340, “Pipe Removal”
412, “Unclassified Structure Excavation”
416, “Channel Excavation”
500, “Fine Grading, Sub-grade, Shoulders and Ditches”
545, “Incidental Stone Base”
560, “Shoulder Construction”
1530, “Abandon or Remove Utilities”
1607, “Gravel Construction Entrance”

Additional City Specifications

1. Clearing and Grubbing: Clearing on this Project shall be performed to the slope stake line or the right-of-way or easement lines unless directed otherwise. Removal of trees and shrubs are to be minimized as much as possible. Contractor to avoid and minimize damage to those trees and shrubs determined to remain.

2. Overflow Stream Fill: Overflow stream fill upstream and downstream of the culvert, with equal parts natural material, class B riprap and #57 stone, as shown in the plans, shall be included in this item.

3. Topsoil: The Contractor shall use local unsuitable material as topsoil. All costs related to this item shall be included in this unit.

4. Fence Removal and Disposal and or Fence Relocation: as shown on the plans and any additional removal or relocation identified by the Contractor’s means and methods shall be included in this item.

5. Hedgerow and or Planting Bed Removal and Disposal: as shown on the plans and any additional hedgerow or planting bed removal identified by the Contractor’s means and methods shall be included in this item. Hedgerows to be removed shall be approved by the Engineer prior to removal.
6. **Mail Boxes and Site Amenities:** remove, protect, and reset mail boxes and site amenities. The Contractor shall keep mailboxes in service at all times and allow / provide for other services, including but not limited to trash pickup.

7. **Existing Road Signs:** remove, protect, and reset road signs. Repair or replace signs damaged in relocating. Erect signs and supports according to requirements of NCDOT Specifications 903 and 904.

8. **Removal and Disposal of Existing Infrastructure:** concrete curb, sidewalk, miscellaneous concrete, asphalt, driveways, pads, slabs, walls, culverts, structures, catch basins, manholes, etc. within the construction limits as shown on the plans and any additional infrastructure removal identified by the Contractor’s means and methods shall be included in this item.

9. **Shoring:** The Contractor shall be responsible for all shoring to include means, methods, materials and engineering needed to construct the project.

10. **Saw Cutting:** all saw cutting required to build the Project. Where asphalt or concrete (curb, sidewalk, roadway, driveways, parking lots, etc.) is to be removed, the Contractor shall provide a neat edge along the pavement being retained by sawing the pavement a minimum of 2” deep and 1’ wide before breaking and removing adjacent pavement. When the Contractor proposes to saw pavement more than one foot from the proposed pavement (curb, sidewalk, structure, etc.), the Contractor shall obtain approval from the Engineer prior to saw cutting and removing pavement. The cost of sawing asphalt or concrete shall be included in this item.

11. **Sidewalk and Curb Clean-up:** The Contractor shall have all related sidewalk and curb work completed within ten (10) days of placement, including but not limited to 1) removal and disposal of construction debris; 2) related grading to include fine grading; 3) site restoration; 4) seedbed preparation and dress up work; 5) seeding and mulching; and 6) final cleaning.

12. **Tree and/or Stump Removal and Disposal:** as shown on the plans and any additional tree and/or stump removal identified by the Contractor’s means and methods shall be included in this item. Trees to be removed shall be approved by the Engineer prior to removal.

13. **Utility Pipe/Conduit Removal and Disposal:** existing public or private utility pipe / conduit, subsurface and shoulder drain pipe removal and disposal as shown on the plans and any additional utility pipe / conduit removal identified by the Contractor’s means and methods shall be included in this item.

14. **Property Access:** all labor and materials required to maintain access to properties during construction as directed by the Engineer.

The work for the Temporary Sewer Abandonment and Reconfiguration shall be included in SP-17 and not in this SP-02.

**2.0 MEASUREMENT**

There will be no separate measurement made for Comprehensive Grading.
3.0  PAYMENT

For the above-referenced NCDOT sections and numbered Additional City Specifications, there will be no direct measurement, payment or compensation, all cost incurred to complete the work as specified shall be included in the Lump Sum price bid for “Comprehensive Grading”.

There will be **no separate measurement or payment** for the items listed or referenced in this specification.

Payment will be made under:

**COMPREHENSIVE GRADING.......................................................... LS**

**SP-03, SELECT MATERIAL**

1.0  DESCRIPTION

Work covered in this special provision consists of furnishing, placing, and compacting select material as shown on the plans or as directed.

Select material shall be placed in pipe culvert excavations within the existing or proposed roadway, including beneath the proposed curb and gutter, or as directed. The Engineer will determine the amount and location of select material to be used on the project. The Contractor shall not remove material from the project without approval from the Engineer.

2.0  MATERIALS

Select material shall meet the requirements of NCDOT Standard Specifications for Roads and Structures, Select Material, Class III, Type 2 (Section 1016-3), or other approved classes or materials as directed.

With written approval and without additional compensation, a higher class of material may be substituted than stated in the Contract Documents.

3.0  MEASUREMENT AND PAYMENT

There will be no separate measurement or payment for select bedding and select backfill material required in the installation of pipe as illustrated in NCDOT 300.01. All bedding and select backfill material required in the installation of the pipe as illustrated in NCDOT 300.01 will be included in cost of the installed pipe.

When local material meeting the requirements for suitable materials as defined in the *Earthwork, Excavation, Unsuitable Materials, and Backfill Materials* Special Provision is approved for use by the Engineer, there will be no separate measurement or payment for the local suitable material incorporated into the completed and accepted Project. The cost to furnish, haul, place and compact
local suitable material that meets the requirements will be included in the lump sum price bid for SP-02 Comprehensive Grading (a special provision and pay item in this contract).

When other than local material meeting the requirement for select material is used, the quantity of select material for backfill shall be measured by weighing material in trucks in accordance with section 106-7 Scales and Public Weighmaster, as determined by the Engineer. At the Engineer’s discretion, truck measurement in accordance with Article 230-5 (B) may be used instead of weighing material in trucks. A unit weight of 135 lb/cf will be used to convert the weight of select material to tons.

The contract unit prices for Select Material as described above will be full compensation for furnishing, transporting, handling, placing, compacting, and maintaining select material. Unless otherwise directed by the Engineer, there will be no separate payment for select material above the select bedding and backfill materials included in the cost of the installed pipe culvert, which exceeds the following extents:

**Storm Drainage**
- Pipe
  - Horizontally – the outer diameter of the pipe plus three feet;
  - Vertically – from the top of the select backfill material to the ground line, as illustrated in NCDOT 300.01
- Box Culverts/Bends/Bottomless Culverts
  - Horizontally – outer width of culvert or footer plus six feet (three feet each side);
  - Vertically – from the top of the bedding material or bottom of the structure to the ground line, as illustrated in Figure 2.1 of the Precast Reinforced Concrete Culvert Special Provision;

**Structures**
(Includes but not limited to: headwalls, drainage structures (catch basins, drop inlets, risers, etc.), flared end sections, retaining walls, etc.)
- Vertically – to the ground line elevation as shown on the plans or details;
- Horizontally – two (2) feet from each exterior surface (outer wall of the structure or footer whichever is further)

Material used for the Contractor’s means and methods outside of these trench limits shall meet the material requirement and will be at the Contractor’s expense.

Do not use Select Material until all local material meeting the requirements of suitable material as defined in the Earthwork, Excavation, Unsuitable Materials, and Backfill Materials Special Provision has been incorporated into the Project. If the Contractor brings select material onto the Project for its own convenience, that material will not be measured or paid for as Select Material.

Payment will be made under:

SELECT MATERIAL...............................................................................................................TN
SP-04, BORROW EXCAVATION

1.0 DESCRIPTION

The work covered in this special provision includes all elements of work covered in section 230 "Borrow Excavation" of the Standard Specifications with the following exception pertaining to payment.

2.0 MEASUREMENT

Measurement shall be made in accordance with the Standard Specifications, Section 230-5(A) In-Place Measurement or Section 230-5(B) Truck Measurement as directed by the Engineer.

3.0 PAYMENT

The quantity of Borrow Excavation, measured as provided above, will be paid for at the contract unit price per cubic yard for Borrow Excavation. When Borrow Excavation is used to replace soil that has been determined to be unsuitable by the Engineering Department due to moisture, poor soil composition, or other factors, the contract unit price for Borrow Excavation shall include all excavation, removal from site, and proper disposal of unsuitable soil.

The contract unit price for Borrow Excavation as described above will be full compensation for furnishing, transporting, handling, placing, compacting, and maintaining borrow material. Unless otherwise directed by the Engineer, there will be no separate payment for borrow material above the select bedding and backfill materials included in the cost of the installed pipe, which exceeds the following extents:

**Storm Drainage**

- Pipe
  - Horizontally – the outer diameter of the pipe plus three feet;
  - Vertically – from the top of the select backfill material to the ground line, as illustrated in NCDOT 300.01;
- Box Culverts/Bends/Bottomless Culverts
  - Horizontally – outer width of culvert or footer plus six feet (three feet each side);
  - Vertically – from the top of the bedding material or bottom of the structure to the ground line, as illustrated in Figure 2.1 of the Precast Reinforced Concrete Culvert Special Provision;

**Structures**

(Includes but not limited to: headwalls, drainage structures (catch basins, drop inlets, risers, etc.), flared end sections, retaining walls, etc.)

- Vertically – to the ground line elevation as shown on the plans or details;
- Horizontally – two (2) feet from each exterior surface (outer wall of the structure or footer whichever is further)

Material used for the contractor’s means and methods outside of these trench limits shall meet the material requirement and will be at the contractor’s expense.

Payment will be made under:
SP-05, ROCK REMOVAL

1.0 DESCRIPTION

Work covered by this special provision consists of the removal and disposal of rock encountered within the construction limits.

2.0 CONSTRUCTION METHODS

Rock shall be defined as any subsurface material (except foundations and pavements) which cannot be excavated by a backhoe, or track hoe which is capable of producing 25,000 pounds of curling force.

When rock is encountered, the Engineer shall be notified to:

• verify that the material cannot be removed as defined above or incorporated into the project feature
• determine the measurement limits

Removal methods include, but are not limited to, drilling, pneumatic hammering, blasting, etc. or as directed by the Engineer.

Blasting shall be performed as specified in Article 220-3 of the Standard Specifications.

Disposal shall be in accordance with Section 802 in the Standard Specifications.

3.0 MEASUREMENT

The quantity of rock removal to be paid for will be the actual number of cubic yards of rock, measured in its original position and computed by the average end area method, which has been removed and disposed of.

Measurements for the determination of actual quantities of rock removed shall be computed as described below or as directed by the Engineer:

**Storm Drainage**

• Pipe
  o Horizontally – as illustrated in NCDOT 300.01;
  o Lower Limit – as illustrated in NCDOT 300.01

• Box Culverts/Bends/Bottomless Culverts
  o Horizontally – outer width of culvert or footer plus six (6) feet (3 feet each side);
  o Lower Limit – one (1) foot below the bottom of the barrel or footing;

**Channels**
• Two (2) feet below the finished grade or;
• Stream/channel structures – as directed by the Engineer.

**Ponds**
• Below normal pool – to finished grade;
• Above normal pool – two (2) feet below finished grade;

**Structures**
(*Includes but not limited to: headwalls, drainage structures (catch basins, drop inlets, risers, etc.), rip rap aprons, flared end sections, retaining walls, etc.)*
• To the subgrade elevation as shown on the plans or details;
• Horizontally – two (2) feet from each exterior surface (outer wall of the structure or footer; boulder or rip rap extents, as approved for stream structures and rip rap aprons)

**Roadways, Yards, Etc.**
• Two (2) feet below finished grade;

There will be no measurement of quantities of rock removed beyond these limits. Where the Engineer makes a recommendation for incorporating the encountered rock material into the project feature, there shall be no separate payment for incorporating the in situ rock into the project feature.

### 4.0 PAYMENT

The quantity of rock removal, measured as provided above, will be paid for at the contract unit price per cubic yard for "Rock Removal." Such payment will be full compensation for all work covered by this special provision including but not limited to drilling, pneumatic hammering, blasting (including complying with Article 220-3 of the Standard Specifications), excavating, and disposing of rock encountered within the pay limits of the project.

Payment will be made under:

ROCK REMOVAL .............................................................................................................................. CY

**SP-06, EARTHWORK, EXCAVATION, UNSUITABLE MATERIALS, AND BACKFILL MATERIALS**

### 1.0 DESCRIPTION

Earthwork shall be performed to the lines and grades indicated on the plans. The work shall include excavation, furnishing, placement, compaction, and satisfactory disposal of all materials encountered within the limits of the Work necessary for the construction of the Project.

All excavated materials that are not required for the Project or are unsuitable for fills shall be considered as waste and shall be hauled off the site at the Contractor’s expense.
The Contractor shall be responsible for all borrow material required to construct the Project as shown on the plans.

2.0 MATERIALS

Provide bedding material in accordance with Article 1016-3 for Class II, Type 1 or Class III, Type 1 or Type 2 select material.

Provide backfill material in accordance with Article 1016-3 for Class II, (Type 1 for flexible pipe) or Class III select material.

Provide foundation conditioning material in accordance with Article 1016-3 for Class V or VI select material.

Provide foundation conditioning geotextile in accordance with Article 1056-2 for Type 2 geotextile.

Provide borrow material in accordance with Article 1018.

3.0 MEASUREMENT AND PAYMENT

There will be no direct payment for earthwork, excavation, unsuitable materials, and backfill materials described in this special provision. Payment will be made at the contract unit prices for the various items covered by sections 226 Undercut Excavation, 300 Pipe Installation, 305 Drainage Pipe, 310 Pipe Culverts, SP-01 Comprehensive Grading, SP-03 Select Material, and SP-04 Borrow Excavation.

(A) Unsuitable Material

Unsuitable material shall be defined as any and all unsuitable materials regardless of its nature. Unsuitable Material not incorporated into the Project shall be removed, hauled, and disposed by the Contractor only as authorized by the Engineer. Stockpiled Unsuitable Material shall be disposed of no less than once per week.

Proposed Project Subgrade, other than Pipe Culvert Trench Subgrade

Unsuitable material below the proposed project sub-grade, including but not limited to below the invert of an open channel or bottom of detention facilities, shall be removed, measured, hauled, disposed of, replaced, and paid for under NCDOT Section 226 Undercut Excavation. Unsuitable material above the proposed project sub-grade shall be removed, hauled, and disposed of at no additional cost to the City.

Proposed Pipe Culvert Trench Subgrade

Unsuitable material below the proposed project pipe culvert trench subgrade within the approved trench excavation limits for storm drainage pipe and storm drainage culvert (including but not limited to box culverts, oval pipe culverts and three-sided culverts/bridges) shall be removed, measured, hauled, disposed of, replaced, and paid for in accordance with Section 300-9 (B) Foundation Conditioning Material and Section 300-9 (C) Foundation Conditioning Geotextile.
Unsuitable material **above** the proposed pipe culvert trench sub-grade shall be removed, hauled, disposed of at no additional cost to the City.

**(B) Bedding and Backfill**

- **Pipe** (including round, elliptical, etc.)
  - There will be no separate measurement or payment for select bedding and select backfill material required in the installation of pipe as illustrated in NCDOT 300.01. All bedding and select backfill material will be included in cost of the installed pipe.

- **Culvert** (Box Culverts/Bends/Bottomless Culverts)
  - There will be no separate measurement or payment for bedding required in the installation of culverts as illustrated in Figure 2.1 of the *Precast Reinforced Concrete Culvert* Special Provision or as shown on the plans. All bedding material will be included in cost of the installed pipe or culvert.
  - Material needed for buried culvert inverts and channel inverts inside three-sided bridge/culverts shall be incidental to the cost of the culvert unless otherwise directed by the Engineer.

When local material meeting the requirements for the select bedding and backfill is approved for use by the Engineer, no deductions in the cost of pipe culvert will be made. Local material is defined as material generated on the project site or within the project limits.

**Within the Existing or Proposed Roadway**

- **Pipe** (including round, elliptical, etc.)
  - For pipe located within the existing or proposed roadway, including beneath the proposed curb and gutter or between road ditch lines, the Contractor shall use suitable material from the elevation of the select backfill material included in the cost of the installed pipe to the subgrade.

- **Culvert** (Box Culverts/Bends/Bottomless Culverts)
  - For culverts located within the existing or proposed roadway, including beneath the proposed curb and gutter or between road ditch lines, the Contractor shall use suitable material from the elevation of the bedding included in the cost of the installed culvert to the subgrade.

When local material meeting the requirements for suitable material is approved for use by the Engineer, there will be no separate measurement or payment for the material incorporated into the completed and accepted Project.

Suitable material shall be defined as material meeting both:

- **Unified Soil Classification System (USCS) designation** of GW, GP, GM, GC, SW, SP, SM, or SC and

When local suitable material is not available to complete the backfill of the trench, the Contractor shall use select material in accordance with SP-03 \textit{Select Material}. Do not use \textit{Select Material} until all local suitable material has been incorporated into the Project. There shall be no measurement or payment made for \textit{Select Material} brought to the site at the Contractor’s convenience.

\textbf{Outside of the Proposed or Existing Roadway}

• Pipe (including round, elliptical, etc.)
  o For pipe located outside the existing or proposed roadway, the Contractor shall use local suitable material from the elevation of the select backfill material included in the cost of the installed pipe to the finished grade or subgrade.

• Culvert (Box Culverts/Bends/Bottomless Culverts)
  o For culverts located outside the existing or proposed roadway, the Contractor shall use local suitable material from the elevation of the bedding included in the cost of the installed culvert to the finished grade or subgrade.

When local suitable material is not available to complete the backfill of the trench, the Contractor shall use borrow material in accordance with SP-04, \textit{Borrow Excavation}. Do not use \textit{Borrow Excavation} material until all local suitable material has been incorporated into the Project. There shall be no measurement or payment made for borrow excavation material brought to the site at the Contractor’s convenience.

When local suitable material is not available to complete the backfill of the trench, the Contractor shall use select material in accordance with SP-03, \textit{Select Material}. Do not use \textit{Select Material} until all local suitable material has been incorporated into the Project. There shall be no measurement or payment made for select material brought to the site at the Contractor’s convenience.

\textbf{(C) Other}

No separate measurement or payment will be made for any other excavation, furnishing, placement, compaction or satisfactory disposal of material encountered within the limits of Work necessary for construction of the Project. All other earthwork shall be considered incidental to the Project and paid for in \textit{Comprehensive Grading}, unless noted elsewhere in the Contract Documents.

\textbf{SP-07, PRECAST REINFORCED CONCRETE CULVERT}

\textbf{Description}

Work covered by this special provision consists of installation of a precast reinforced concrete culvert or arch culvert (culvert), in accordance with the plans and specifications at locations shown on the plans. The work shall also include the construction of such joints and connections to other culverts, pipes, drainage structures, and steps as may be necessary to complete the work shown on the plans.
Materials and Construction Methods

Installation of the culvert shall conform to Section 414 of the NCDOT Standard Specifications as well as any requirements of this provision. Backfill shall be as specified in the Earthwork, Excavation, Unsuitable Materials, and Backfill Materials Special Provision.

Design and Manufacture
Culvert sections shall conform to ASTM C-1577 or the latest edition of the AASHTO LRFD Bridge Design Specifications. Provide a precast culvert that meets the requirements of Section 1077 and any other applicable parts of the Standard Specifications.

The concrete mixture shall meet the requirements for Single Cell Box Sections shown in Table 1077-1 in Section 1077 of the NCDOT Standard Specifications. Movement of the precast sections should be minimized during the initial curing period. Any damage caused by moving or handling during the initial curing phase will be grounds for rejection of that precast section. Air entrain the concrete in accordance with Section 1077 - 5(A) of the NCDOT Standard Specifications. For dry cast manufacturing, air entrainment is not required.

Handling devices or holes are permitted in each culvert section for the purpose of handling and laying. Submit details of handling devices or holes for approval and do not cast any concrete until approval is granted. Remove all handling devices flush with concrete surfaces as directed. Fill holes in a neat and workmanlike manner with an approved non-metallic non-shrink grout, concrete, or hole plug.

Each culvert section shall be checked at the plant for fitment and numbered which shall correspond to the laying schedule.

All openings shown on the plans in the culvert shall be formed during the manufacturing process.

Culvert minimum waterway area shown on the plans shall be verified with the manufacturer for the culvert sizes due to manufacturing differences.

Joints
Produce the precast reinforced concrete culvert section with tongue and groove ends. Design and form these ends of the culvert section so, when the sections are laid together, they make a continuous line of culvert sections with a smooth interior free of appreciable irregularities in the flowline. The internal joint formed at the tongue and groove ends of the precast units shall be sealed with either bitumen/butyl sealant or closed-cell neoprene material conforming to ASTM C990 or C1677. The internal joint material shall be installed in accordance with the manufacturer's recommendations. The material shall be shown on the shop drawings when they are submitted for review.

Seal the external joint with an outside sealer wrap conforming to ASTM C877 that is at least 12 inches wide and covers the joint on both the sides and the top of the box section. Use ConWrap CS-212 from Concrete Sealants, Inc., EZ-Wrap from Press-Seal Gasket Corporation, Seal Wrap from Mar-Mac Manufacturing Co., Inc., Cadilloc External Pipe Joint from Cadilloc, or an approved equal for the outside sealer wrap. If the outside sealer wrap is not applied in a continuous strip
along the entire joint, a 12 inch minimum lap of the outside sealer wrap is permitted. Before placing the outside sealer wrap, clean and prime the area receiving the outside sealer wrap in accordance with the sealer wrap manufacturer recommendations. The joint wrap manufacturer installation recommendations shall be included with shop drawings submitted for review.

Cover the external joint sealer with a 3 foot strip of filter fabric conforming to Type 4 requirements in Section 1056 of the Standard Specifications.

**Installation**

Ensure that equipment of the correct lifting capacity is available to install precast concrete units. Site conditions must be checked well in advance of shipping to ensure proper equipment location and to avoid any lifting restrictions. The lift anchors or holes provided in each section are only means to lift the elements unless otherwise approved by manufacturer.

In no case shall equipment operating in excess of the design load be permitted over the culvert units unless otherwise approved by manufacturer.

No construction equipment shall cross the bare precast concrete unit. The contractor shall refer to the Manufacturers specifications for additional restrictions.

No backfill shall be placed against any structural elements until they have been approved by the Engineer. Complete backfill in accordance with Sections 410-8 and 414-7 of the NCDOT Standard Specifications, Manufacturer’s Specifications, and as specified in the Earthwork, Excavation, Unsuitable Materials, and Backfill Materials Special Provision. Sections 410-10 and 414-9 of the NCDOT Standard Specifications do not apply.

Bedding for precast culvert shall meet the requirements of Section 410 and 414 of the NCDOT Standard Specifications. Excavate 12 inches below the bottom of barrel and footings and backfill with Class VI select material in accordance with Section 1016 of the NCDOT Standard Specifications or as shown on the plans. Bedding shall extend 12 inches outside of the culvert or footings. In addition, bedding material shall be placed on filter fabric conforming to Type 4 requirements in Section 1056 of the NCDOT Standard Specifications. The filter fabric shall be placed perpendicular to the culvert barrel and extend 1 foot vertically onto the culvert wall/footing. Perpendicular sections of fabric shall be continuous. A minimum lap of 2 feet shall be provided between sections of fabric.

a) Culvert sections shall be placed at the beginning of the outlet end of the culvert with the groove end being laid upgrade. Tongue sections shall be laid into the groove sections. Positive means shall be provided to pull each section firmly into the previously placed section so that the joints are tightly homed. Use a "come-along", box pullers or other approved methods to create a positive means of joining box sections. Construction equipment shall not have direct contact with the culvert section. The load of the culvert sections shall be suspended by a lifting device during joining procedure.

b) Place multiple, parallel lines of a culvert such that the separation between the lines of culvert has a minimum width of 3 inches. Fill the separation between multiple lines of culvert with non-excavatable flowable fill. Use
flowable fill that meets the requirements listed in Section 1000 of the NCDOT Standard Specifications except that Field Compressive Strength Specimens are not required.

**Invert Fill Material (as needed)**

c) The culvert shall be filled with native soil as shown on the plans and details. Native material consists of material that is excavated from the stream bed or floodplain at the project site during culvert construction. Only material that is excavated from the stream bed may be used to line the low flow channel or culvert barrel. Rip rap may be used to supplement the native material. If rip rap is used, native material shall be placed on top to fill voids and provide a flat surface for animal passage. Native material is subject to approval by the Engineer and may be subject to permit conditions. If native material is not available, the Engineer shall approve an alternate source of material.

d) The material shall be compacted as little as possible but firm enough to walk on without leaving footprints.

![Figure 2.1 – Precast Reinforced Concrete Culvert Typical Section](image)

**Submittals**

The designs of the precast culverts are the responsibility of the Contractor and are subject to review, comments, and approval. Submit two sets of detailed plans for review. Include all details in the plans, including the size and spacing of the required reinforcement necessary to build the precast culverts and the laying schedule. A North Carolina Registered Professional Engineer shall seal the plans and design calculations. **The shop drawings must show the proposed openings (top and sides) and reinforcing for pipe connections, structure openings, and precast holes for steps.**

The Contractor shall submit the manufacturer’s certification for the culvert sections and those products to be used in the installation.

All submittals shall be made a minimum of two weeks prior to construction or placing an order for materials for review by the Engineer.
Measurement

The quantity of precast reinforced concrete culvert to be paid for will be the actual number of linear feet of culvert which has been installed and accepted. Measurement will be made horizontally along the centerline of the installed culvert. Measurement will not be made across precast bends or other drainage structures.

Payment

Payment for all work covered by this special provision will be made at the contract unit price per linear foot for “Precast Reinforced Concrete Culvert”. Such payment will be full compensation for all work covered by this special provision including, but not limited to, furnishing all labor, materials, filter fabric, equipment, excavating, bedding, invert fill material, flowable fill, installing culvert, constructing joints and connections, furnishing project submittals and other incidentals necessary to complete this work. There shall be no separate payment for Culvert Excavation, filter fabric, bedding, or any other items required by Section 410 (Articles 1-6 and 9) or 414 (Articles 1-5 and 8) of the NCDOT Standard Specifications. Backfill shall be as specified in the Earthwork, Excavation, Unsuitable Materials, and Backfill Materials special provision. Sections 410-10 and 414-9 of the NCDOT Standard Specifications do not apply.

Payment will be made under:

7’ x 6’ PRECAST R. C. CULVERT ................................................................. LF
7’ x 7’ PRECAST R. C. CULVERT ................................................................. LF

SP-08, PRECAST MODULAR BLOCK RETAINING WALL

1.0 DESCRIPTION

The work covered by this special provision includes furnishing and constructing a modular concrete block retaining wall system comprised of a mortar-less, interlocking masonry concrete unit designed with an engineering fabric reinforcement (where required). The system should allow for curves, straight walls, terraces, near vertical or battered wall face, and/or 90 degree bends. The retaining walls shall be in accordance with the manufacturer’s specifications, and the provisions of these specifications.

2.0 MATERIALS

Precast Modular Block Retaining Wall shall consist of:
Concrete Unit Compressive Strength - min. 3000 psi (28-day)
Concrete Unit Absorption - max. 8%
Fiberglass Pins Tensile Strength - 110,000 psi
Fiberglass Pins Flexural Strength - 128,000 psi
Fiberglass Pins Short Beam Shear Strength - 6,400 psi
All concrete units, fiberglass pins, reinforcing fabric and any other necessary materials shall be installed in accordance with the manufacture's specifications and the submitted shop drawings.

3.0 SUBMITTALS

The Contractor shall submit style, color and appearance for review by the City of Concord.

Prior to fabrication, the Contractor shall submit shop drawings for the Precast Modular Block Retaining Wall, including information necessary for installation. The shop drawings must show the proposed load calculations and any proposed fabric reinforcing.

The shop drawings must be signed and sealed by a Professional Engineer registered in the State of North Carolina.

The Contractor will also submit the manufacturer’s certification for the Precast Modular Block Retaining Wall units and those products to be used in the installation.

4.0 CONSTRUCTION METHODS

The modular block wall shall be constructed per manufacture’s specifications and in accordance with the plans and details.

5.0 MEASUREMENT

The quantity of precast modular block retaining walls to be paid for will be the actual square footage of wall, measured along the front surface of the wall from the top of the leveling pad or footer to the top of the wall cap, which has been installed and accepted.

If the lower courses must be backfilled before the wall can be completed, the contractor shall coordinate with the city’s inspector to measure and record this quantity for payment before backfilling.

There will be no measurement of leveling stone, backfill, or engineering fabric, or other items needed for wall construction.

6.0 PAYMENT

The quantity of Precast Modular Block Retaining Wall, measured as provided above, will be paid for at the contract unit price per square foot for “Precast Modular Block Retaining Wall”. Such payment will be full compensation for all work covered by this special provision including but not limited to excavating, constructing foundation, furnishing and constructing modular block retaining wall including fiberglass pins; leveling stone, backfill, or engineering fabric reinforcing material; drainage system and any incidental items necessary to construct the work as shown on the plans, the manufacturers specifications, and the provisions of these specifications.

Payment will be made under:

PRECAST MODULAR BLOCK RETAINING WALL ........................................................ SF
SP-09, NON-STANDARD STRUCTURES

1.0 DESCRIPTION

The work covered by this special provision applies to non-standard endwalls, non-standard toewalls and non-standard drainage structures.

2.0 CONSTRUCTION METHODS AND MATERIALS

Work shall be in accordance with Section 414 Box Culvert Excavation, Section 420 Concrete Structures, Section 425 Fabricating and Placing Reinforcement, Section 830 Brick Masonry Construction, and Section 1040 Masonry of the NCDOT Standard Specifications. There will be an exception made to the articles of each referenced section for the measurement and payment and backfill materials.

Install 6” bedding #57 stone beneath all structures and drainage column behind endwalls.

Use cast in place concrete, brick masonry, block masonry or precast concrete construction as shown on the plans.

Concrete for the structure shall be Class A, as per the Standard Specification Section 1000 except that the minimum compressive strength at 28 days shall be 3,600 psi. Fill concrete indicated on the plans shall be class A or B as described in Section 1000 Portland Cement Concrete Production and Delivery of the NCDOT Standard Specifications.

Materials shall be as shown on the plans or described in Article 838-2 and 840-2 Materials of the NCDOT Standard Specifications.

Methods shall be as described in Article 838-3 and 840-3 Construction Methods of the NCDOT Standard Specifications.

Bottomless structures (i.e. catch basin chimneys, etc.) shall be attached to the base structure or culvert as shown on the plans. (If applicable)

3.0 SUBMITTALS (If applicable)

For all Non-Standard Structures, the Contractor shall submit the manufacturer’s certification and shop drawings for the Non-Standard Structures and those products to be used in the installation.

When a designed structure is not provided in the contract documents, the Contractor shall be responsible for the design of the Non-Standard Structures which are subject to review, comments, and approval. Submit two sets of detailed plans for review. Include all details in the submittal, including the size and spacing of the required reinforcement necessary to build the Non-Standard Structure. A North Carolina Registered Professional Engineer shall seal the submittal, which includes plans and design calculations. The submittal must show the proposed openings (top
and sides) and reinforcing for pipe connections, structure openings, and precast holes for steps, if necessary.

All submittals shall be made a minimum of two weeks prior to construction or placing an order for materials for review by the Engineer.

4.0 MEASUREMENT AND PAYMENT

The quantity of non-standard endwalls, non-standard toewalls and non-standard drainage structures will be measured and paid for in accordance with sections 838-4 and 840-4 Measurement and Payment, of the NCDOT Standard Specifications.

The payment for all work covered by this special provision will be made at the contract unit price per cubic yard for “Non-Standard Endwalls”, “Non-Standard Toewalls”, and/or “Non-Standard Drainage Structures”. Such payment will be full compensation for all elements of work required to construct the structures in accordance with the specifications including, but is not limited to furnishing labor, materials, excavation, stone bedding and drainage column; hauling; disposal of materials; transporting and placing concrete, brick masonry, precast units, mortar, grout, reinforcing steel, hardware, castings and miscellaneous metal; fabrication, welding, and galvanizing to construct cast in place concrete, brick masonry, block masonry or precast concrete walls, weepholes, catch basins, junction boxes, spring boxes, manholes, concrete aprons and other non-standard endwalls, non-standard toewalls and non-standard drainage structures, with all necessary steps, and other hardware, and connection of the structure.

Backfill will be made in accordance with the Earthwork, Excavation, Unsuitable Materials, and Backfill Materials Special Provision.

Fabricated steel and gray iron cast frames, grates, manhole rings and covers shall be measured and paid separately in accordance with the contract.

Payment will be made under:

NON-STANDARD ENDWALL.................................................................CY
NON-STANDARD TOEWALL.............................................................CY
NON-STANDARD DRAINAGE STRUCTURE............................................CY

SP-10, PEDESTRIAN SAFETY RAIL

Furnish and install steel pipe safety rail at locations as shown in the plans, in accordance with the detail in the plans and as directed by the Engineer.

Measurement and Payment

Pedestrian Safety Rail will be measured and paid as the actual number of linear feet of steel pipe safety rail measured along the top of the rail to the nearest 0.1 of a foot. Such price and payment shall be full compensation for fabricating, furnishing, installing, painting and all incidentals necessary to satisfactorily install the safety rail.
Payment will be made under:

**Pay Item**
Pedestrian Safety Rail

**Pay Unit**
Linear Foot

**SP-11, ASPHALT CONCRETE PLANT MIX PAVEMENTS:**
(2-20-18) 610, 1012 SP6 R65

Revise the 2018 *Standard Specifications* as follows:

**Page 6-17, Table 610-1, MIXING TEMPERATURE AT THE ASPHALT PLANT**, replace with the following:

<table>
<thead>
<tr>
<th>Binder Grade</th>
<th>JMF Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG 58-28; PG 64-22</td>
<td>250 - 290°F</td>
</tr>
<tr>
<td>PG 76-22</td>
<td>300 - 325°F</td>
</tr>
</tbody>
</table>

**Page 6-17, Subarticle 610-3(C), Job Mix Formula (JMF), lines 38-39**, delete the fourth paragraph.

**Page 6-18, Subarticle 610-3(C), Job Mix Formula (JMF), line 12**, replace “SF9.5A” with “S9.5B”.

**Page 6-18, Table 610-3, MIX DESIGN CRITERIA**, replace with the following:

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Design ESALs millions A</th>
<th>Binder PG Grade B</th>
<th>Compaction Levels</th>
<th>Max. Rut Depth (mm)</th>
<th>Volumetric Properties</th>
<th>Volumetric Properties</th>
<th>Design Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gmm @</td>
<td></td>
<td>% Min. @ Nini</td>
<td>% Min- Max. @ Nini</td>
<td>%Gmm @ Nini</td>
</tr>
<tr>
<td>S4.75A</td>
<td>&lt; 1</td>
<td>64 - 22</td>
<td>6</td>
<td>11.5</td>
<td>16.0</td>
<td>4.0 - 6.0</td>
<td>65 - 80</td>
</tr>
<tr>
<td>S9.5B</td>
<td>0 - 3</td>
<td>64 - 22</td>
<td>6</td>
<td>9.5</td>
<td>16.0</td>
<td>3.0 - 5.0</td>
<td>70 - 80</td>
</tr>
<tr>
<td>S9.5C</td>
<td>3 - 30</td>
<td>64 - 22</td>
<td>7</td>
<td>6.5</td>
<td>15.5</td>
<td>3.0 - 5.0</td>
<td>65 - 78</td>
</tr>
<tr>
<td>S9.5D</td>
<td>&gt; 30</td>
<td>76 - 22</td>
<td>8</td>
<td>4.5</td>
<td>15.5</td>
<td>3.0 - 5.0</td>
<td>65 - 78</td>
</tr>
<tr>
<td>I19.0C</td>
<td>ALL</td>
<td>64 - 22</td>
<td>7</td>
<td>-</td>
<td>13.5</td>
<td>3.0 - 5.0</td>
<td>65 - 78</td>
</tr>
<tr>
<td>B25.0C</td>
<td>ALL</td>
<td>64 - 22</td>
<td>7</td>
<td>-</td>
<td>12.5</td>
<td>3.0 - 5.0</td>
<td>65 - 78</td>
</tr>
</tbody>
</table>

Design Parameter

- **A.** Based on 20 year design traffic.
- **B.** Volumetric Properties based on specimens compacted to N_{des} as modified by the Department.
- **C.** Dust to Binder Ratio (P_{0.075} / P_{be}) for Type S4.75A is 1.0 - 2.0.
- **D.** NCDOT-T-283 (No Freeze-Thaw cycle required).
- **E.** TSR for Type S4.75A & B25.0C mixes is 80% minimum.
TABLE 610-5
BINDER GRADE REQUIREMENTS (BASED ON RBR%)

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>%RBR ≤ 20%</th>
<th>21% ≤ %RBR ≤ 30%</th>
<th>%RBR &gt; 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4.75A, S9.5B, S9.5C, I19.0C, B25.0C</td>
<td>PG 64-22</td>
<td>PG 64-22A</td>
<td>PG 58-28</td>
</tr>
<tr>
<td>S9.5D, OGFC</td>
<td>PG 76-22B</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

A. If the mix contains any amount of RAS, the virgin binder shall be PG 58-28.
B. Maximum Recycled Binder Replacement (%RBR) is 18% for mixes using PG 76-22 binder.

TABLE 610-6
PLACEMENT TEMPERATURES FOR ASPHALT

<table>
<thead>
<tr>
<th>Asphalt Concrete Mix Type</th>
<th>Minimum Surface and Air Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>B25.0C</td>
<td>35°F</td>
</tr>
<tr>
<td>I19.0C</td>
<td>35°F</td>
</tr>
<tr>
<td>S4.75A, S9.5B, S9.5C</td>
<td>40°F A</td>
</tr>
<tr>
<td>S9.5D</td>
<td>50°F</td>
</tr>
</tbody>
</table>

A. If the mix contains any amount of RAS, the virgin binder shall be PG 58-28.

TABLE 610-7
DENSITY REQUIREMENTS

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Minimum % G_{mm} (Maximum Specific Gravity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4.75A</td>
<td>85.0 A</td>
</tr>
<tr>
<td>S9.5B</td>
<td>90.0</td>
</tr>
<tr>
<td>S9.5C, S9.5D, I19.0C, B25.0C</td>
<td>92.0</td>
</tr>
</tbody>
</table>

A. Compaction to the above specified density will be required when the S4.75A mix is applied at a rate of 100 lbs/sy or higher.

Pay Item

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Concrete Base Course, Type B25.0C</td>
<td>Ton</td>
</tr>
<tr>
<td>Asphalt Concrete Intermediate Course, Type I19.0C</td>
<td>Ton</td>
</tr>
<tr>
<td>Asphalt Concrete Surface Course, Type S4.75A</td>
<td>Ton</td>
</tr>
<tr>
<td>Asphalt Concrete Surface Course, Type S9.5B</td>
<td>Ton</td>
</tr>
<tr>
<td>Asphalt Concrete Surface Course, Type S9.5C</td>
<td>Ton</td>
</tr>
</tbody>
</table>
Page 10-30, Table 1012-1, AGGREGATE CONSENSUS PROPERTIES, replace with the following:

### TABLE 1012-1
AGGREGATE CONSENSUS PROPERTIES

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Coarse Aggregate Angularity&lt;sup&gt;B&lt;/sup&gt;</th>
<th>Fine Aggregate Angularity % Minimum</th>
<th>Sand Equivalent % Minimum</th>
<th>Flat and Elongated 5 : 1 Ratio % Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Method</td>
<td>ASTM D5821</td>
<td>AASHTO T 304</td>
<td>AASHTO T 176</td>
<td>ASTM D4791</td>
</tr>
<tr>
<td>S4.75A; S9.5B</td>
<td>75 / -</td>
<td>40</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>S9.5C; I19.0C; B25.0C</td>
<td>95 / 90</td>
<td>45</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>S9.5D</td>
<td>100 / 100</td>
<td>45</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>OGFC</td>
<td>100 / 100</td>
<td>45</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>UBWC</td>
<td>100 / 85</td>
<td>45</td>
<td>45</td>
<td>10</td>
</tr>
</tbody>
</table>

<sup>A</sup>. Requirements apply to the design aggregate blend.

<sup>B</sup>. 95 / 90 denotes that 95% of the coarse aggregate has one fractured face and 90% has 2 or more fractured faces.

### SP-12, PUMP AROUND OPERATION

#### 1.0 DESCRIPTION

Work under this section, includes all work necessary for the installation and maintenance of the pump around operation, and the stream restoration to preconstruction conditions. Work shall be performed in the dry by pumping stream base flow around project work areas for sediment and erosion control purposes as may be necessary or directed by the Engineer and to conform to the plans, specifications, details, permits, local laws, state laws and federal laws and the City of Concord’s Ordinances, Policies and Standards Specifications where applicable.

The pump around shall provide a passageway for the normal stream flow through the work site. This pump around operation is for storm drainage work only and should not be considered for sanitary sewer bypass pumping.

#### 2.0 METHODS AND MATERIALS

The measures and works shall include, but are not limited to, the following:

**Pump Around Operation** – A pump shall be used to convey the stream base flow around the work area during channel excavation, installation of structures, and stabilization. The pump well shall be cased and filter provided to prevent pumping of sediment fines. The intake for the drain
mechanism upstream of the impervious dike should be located near the top of the water column unless otherwise specified by the City. Impervious dikes shall be installed at the upstream and downstream locations of the pump around operations. The size of pumps used shall be determined by the onsite contractor with approval from the Engineer. The pump includes temporary flexible hose in sufficient length to pump the water from the upstream side of the active working area to the downstream end. Pumps shall be silent or quiet rated (70 decibels at 25 feet). Water removed from the pond or excavated project site shall pass through a temporary stabilized outlet to be located upstream of the receiving stream unless otherwise noted.

**Dewatering Sediment Filter Bag Systems** – A special sediment removal device shall be used to filter pumped water from the excavated project site during construction. The quantity of sediment filter bag systems may be increased, decreased, or eliminated entirely at the direction of the on-site Engineer.

**Stream restoration to preconstruction conditions** - Stream areas impacted by the pump around operation shall be regraded to its preconstruction contours and revegetated with appropriate native species.

### 3.0 MEASUREMENT

No measurement will be made of any materials under this item. Impervious dikes, dewatering sediment filter bag systems and any grading and revegetating will be incidental to this item.

### 4.0 PAYMENT

The Pump Around Operation specified under this section consists of furnishing all labor, materials, equipment, supplies, supervision, tools, and performing all work necessary for maintaining baseflow downstream of stream, culverts, and pipes, and the installation, maintenance, removal of impervious dikes and dewatering sediment filter bag systems, regarding to original contours and revegetating, in conjunction with stream restoration/stabilization construction and shall be paid for at the contract lump sum for *Pump Around Operation*.

Payment will be made under:

**PUMP AROUND OPERATION**

**SP-13, IMPERVIOUS DIKE**

The Contractor shall construct an impervious dike in such a manner as approved by the Engineer, including, but not limited to furnishing materials, construction, maintenance, and removal of an impervious dike for the purpose of preventing normal stream flow and dewatering a stream segment for construction operations. The impervious dike shall not permit seepage of water into the construction site.

### 1.0 SUBMITTALS

Prior to construction, the Contractor shall submit a detail illustrating the component materials and dimensions of the impervious dike. The impervious dike shall impound water to a depth range as
shown on the impervious dike detail and shall minimize erosion and discharge of sediment in the event of overtopping.

2.0 METHODS

The impervious dike shall be constructed in locations as directed by the Engineer. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavation to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.

The intake for the drain mechanism upstream of the impervious dike should be located near the top of the water column unless otherwise specified by the City. Water removed from the pond or excavated project site shall pass through a special stilling basin to be located upstream of the receiving stream unless otherwise noted.

3.0 MEASUREMENT

There will be no measurement made for Impervious Dike.

4.0 PAYMENT

No direct payment will be made for Impervious Dike. All work covered in this special provision, including, but not limited to furnishing all labor materials, construction, maintenance, and removal of the impervious dike will be incidental to the lump sum price for Pump Around Operation.

SP-14, ROCK SILL

1.0 DESCRIPTION

The work covered by this section consists of furnishing, stockpiling, placing and maintaining approved stone and filter fabric to be utilized to construct the rock sill, as specified in the Contract Document or as directed by the Engineer. Sills are used to provide grade control and improve aquatic habitat.

Sills extend perpendicularly across the streambed in a relatively straight line. The structure may be used alone or in combination with a constructed riffle. The structure invert may be set slightly lower, in the center, to provide a thalweg and to match the typical section dimensions.

The quantity of structures to be constructed will be affected by actual conditions that occur during the construction of the project. The type and quantity of this structure may be increased or decreased at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

2.0 MATERIALS
Boulders shall consist of flat-sided, durable field or quarry stone that is sound, hard, dense, angular, and resistant to the action of air and water, and free of seams, cracks, or other structural defects. The Contractor shall use stone pieces with a “shape factor” greater than two (length and width more than twice the thickness). The Contractor cannot use limestone or concrete waste for stone. Stone shall be approved by the Engineer.

The size (length, width and depth (thickness)) of the boulder material shall as specified by the Engineer. Stone shall be approved by the Engineer.

Boulders for in-stream structures shall conform to the specifications for boulders shall conform to their respective specifications as shown on the plans. Coarse Backfill shall meet the material requirements of NCDOT Section 1042 Coarse backfill material shall consist of durable field or quarry stone that is sound, hard, dense, slightly rounded, resistant to the action of air and water, and free of seams, cracks, or other structural defects. The Contractor shall use stone pieces with a “shape factor” less than two (length and width less than twice the thickness). The Contractor cannot use limestone or concrete waste for stone. Stone shall be approved by the Engineer.

The type, size and gradation of the Coarse Backfill Material shall be specified by the Engineer to be mobile or non-mobile as the conditions in the channel warrant, and in accordance with the construction documents.

Coarse backfill material shall meet the material requirements of NCDOT section 1042 Rip Rap Materials.

Filter fabric for sealing structures shall meet the material requirements of NCDOT Section 1056 Geosynthetics.

3.0 METHODS

Structure installation and channel grading sequences may vary based on structure function and design. Grade control structures, such as rock sills, shall be installed as grading operations progress downstream.

a) Establish elevations of the proposed structure. The Contractor may install additional survey control, as needed, to complete the work in accordance with the Contract Documents.

b) Over-excavate/trench the stream bed to a depth equal to the total thickness of the boulders. Bedding for the placement of the boulders shall be approved by the Engineer prior to placement.

c) Install filter fabric per the Contract Documents across the area of over-excavation/trenching. Fabric reaching the excavated stream bed / toe of bank soil face may be folded and/or trimmed, in accordance with the Contract Documents. The fabric installation shall be reviewed by the Engineer prior to proceeding with the work.

d) Place boulders in the trench prepared for the sill. Boulders shall have direct surface contact with adjacent boulders, free of gaps. Review, survey (measure), and adjust the alignment and/or height of the sill boulders, as needed. Selecting boulders with similar thickness may
assist with the ease of construction. The boulders shall be reviewed by the Engineer prior to proceeding with the work. Installation of invert boulder first, may help with construction of boulder sill.

e) Place Coarse Backfill between the back of the sill boulders and the excavated /constructed streambed soil face. Coarse Backfill shall be level with the top surface of the boulders and the adjacent upstream streambed. The Coarse Backfill shall be reviewed by the Engineer prior to proceeding with the work.

f) After installing all of the sill boulders, inspect the structure and trim/cut any loose and/or visible fabric.

g) Finish grade the adjacent streambed and channel banks to provide a smooth even grade transition between project structure components (arms, sills, inverts, floodplain sills, etc.) and the existing and/or proposed ground surface.

In locations where exposed bedrock and/or other existing feature extends to and/or within the limits of the proposed work, the rock sill installation shall be field adjusted to incorporate the bedrock/existing feature, into the finished work. The Engineer shall be contacted as soon as the presence of bedrock and/or other existing feature is field identified, to determine the appropriate method of incorporation. Site conditions may require slight deviation from the plan and shall be approved by the Engineer.

4.0 MEASUREMENT

The quantity of rock sill to be paid for shall be the actual number of linear feet of “Rock Sill” completed and accepted into the final work, as measured along the centerline surface of the sill.

No separate measurement of materials shall be made under this item for footer boulders, coarse backfill, fabric, and/or other incidental items.

5.0 PAYMENT

The work covered by this section shall be paid for at the contract per linear foot price for “Rock Sill”. Payment will be full compensation for all work covered in this special provision, including, but not limited to grading, installation, adjusting, excavating, placing backfill, maintaining the feature through acceptance, and for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work as specified in the Contract Documents, or as directed by the Engineer.

No separate payment shall be made for subsidiary items.

Payment shall be made under:

ROCK SILL ................................................................................................................................................. LF
SP-15 – COIR FIBER MATTING

1.0 DESCRIPTION

This work consists of furnishing and installing erosion control matting on the finished grade, as designated on the plans and details, or as directed by the Engineer.

2.0 MATERIALS

Coir matting is proposed to be used on stream banks and designated areas within the wetland for the purpose of managing the shear stresses associated with flows through the stream and wetland. Straw matting is to be used on all other areas as directed in the Quoting Documents or required by the conditions of the erosion control permit. The matting shall meet the requirements shown on the plans and conform to the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Coir Matting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrix</td>
<td>100% Coconut Fiber (Coir)</td>
</tr>
<tr>
<td>Nettings</td>
<td>100% Biodegradable fiber</td>
</tr>
<tr>
<td>Threading</td>
<td>100% Biodegradable</td>
</tr>
<tr>
<td>Matting Description</td>
<td>100% Biodegradable</td>
</tr>
<tr>
<td>Weight (oz/SY)</td>
<td>12-15</td>
</tr>
<tr>
<td>Width (m)</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Length (m)</td>
<td>25-50</td>
</tr>
<tr>
<td>Open area (calculated)</td>
<td>55% - 65%</td>
</tr>
<tr>
<td>Light Penetration</td>
<td>-</td>
</tr>
<tr>
<td>Tensile Strength (Dry) (lbs/ft)</td>
<td>400-600</td>
</tr>
<tr>
<td>Elongation (Wet) (%)</td>
<td>25 - 35</td>
</tr>
<tr>
<td>Thickness (inch)</td>
<td>0.30 – 0.35</td>
</tr>
<tr>
<td>Maximum Flow Velocity (fps)</td>
<td>8 - 10</td>
</tr>
<tr>
<td>Typical Slope</td>
<td>1V:2H – 1V:1H</td>
</tr>
</tbody>
</table>

Certifications from each coir fabric manufacturer that furnished products have specified property values. Certified property values shall be either minimum or maximum average roll values, as appropriate, for fabric furnished.

Stakes shall be cut to the appropriate length from untreated boards. In fabricating these units, each board of the selected length shall be cut again diagonally across the face to make two stakes from each length. The diagonal cut will occur 1/2 inch from the edge of the piece so the finished stake will have a 1/2 inch tip. Only new, sound, unused material shall be used. The stakes are to be used to secure erosion control matting in place at the top and toe of the stream bank. Two-foot long, 1/2-inch hooked rebar may be substituted when it is necessary to secure materials in rocky areas.

Use stakes of a size and type(s) as specified by the Manufacturer or as otherwise specified in the Quoting Documents. Wood stakes shall be made of untreated wood. Metal stakes or staples may be used in certain areas of this work pending approval of the City.
3.0 METHOD

Products should be handled in a manner that prevents damage prior to and during installation. Fabric should be stored with suitable wrapping for protection against moisture and ultraviolet exposure prior to installation.

Install erosion control fabric lengthwise (horizontally) along the stream bank in accordance with the plans and as follows.

a) Excavate a trench along the toe of the stream bank in the location shown on the plans.

b) Place fabric in the trench, secure the fabric with a dead stout stake, backfill with clean soil, and then the wrap the fabric over the top surface of the trench and be positioned for installation over the stream bank surface.

c) Prepare, seed, and straw mulch the stream bank surface in accordance with the Quoting Documents prior to the placement of the fabric over the stream bank surface.

d) Lay fabric over the stream bank surface so as to not be in tension, but be placed neatly and with no gaps or wrinkles. Any fabric overlaps necessary shall be as specified in the plans.

e) Bring fabric up and over the top of the stream bank and secure it into a trench located as shown on the plans. The trench width and depth shall be per the plans.

f) Place fabric into the trench, secure the fabric with a dead stout stake, and backfill with clean soil.

g) Install field stakes of a size, type, in a pattern, and with spacing dimensions as specified by the Manufacturer or as otherwise specified in the Quoting Documents.

h) Secure erosion control fabric neatly around any project elements, undisturbed trees/shrubs, and existing structures to prevent any loose or frayed edges. There shall be no loose ends or unsecured erosion control fabric on the completed work.

i) Repeat steps a) through h) until the matting for erosion control installation area is in compliance with the Quoting Documents.

Site conditions may require slight deviation from the planting plan and shall be approved by the City.

4.0 MEASUREMENT AND PAYMENT

Coir Fiber Matting will be measured and paid as the actual number of square yards of coir fiber matting which are installed and accepted. Such price and payment will be full compensation for all work covered by this section, including, but not limited to, furnishing all materials, labor, equipment and incidentals necessary to install the coir fiber matting.
Payment will be made under:

COIR FIBER MATTING........................................................................................................SY

SP-16, SAFETY FENCE AND JURISDICTIONAL FLAGGING:

1.0 DESCRIPTION

Safety Fence shall consist of furnishing materials, installing and maintaining polyethylene or polypropylene fence along the outside riparian buffer, wetland, or water boundary, or other boundaries located within the construction corridor to mark the areas that have been approved to infringe within the buffer, wetland, endangered vegetation, culturally sensitive areas or water. The fence shall be installed prior to any land disturbing activities. Interior boundaries for jurisdictional areas noted above shall be delineated by stakes and highly visible flagging.

Jurisdictional boundaries at staging areas, waste sites, or borrow pits, whether considered outside or interior boundaries shall be delineated by stakes and highly visible flagging.

2.0 MATERIALS

(A) Safety Fencing

Polyethylene or polypropylene fence shall be a highly visible preconstructed safety fence approved by the Engineer. The fence material shall have an ultraviolet coating.

Either wood posts or steel posts may be used. Wood posts shall be hardwood with a wedge or pencil tip at one end, and shall be at least 5 ft. in length with a minimum nominal 2” x 2” cross section. Steel posts shall be at least 5 ft. in length, and have a minimum weight of 0.85 lb/ft of length.

(B) Boundary Flagging

Wooden stakes shall be 4 feet in length with a minimum nominal 3/4” x 1-3/4” cross section. The flagging shall be at least 1” in width. The flagging material shall be vinyl and shall be orange in color and highly visible.

3.0 CONSTRUCTION METHODS

No additional clearing and grubbing is anticipated for the installation of this fence. The fence shall be erected to conform to the general contour of the ground.

(A) Safety Fencing

Posts shall be set at a maximum spacing of 10 ft., maintained in a vertical position and hand set or set with a post driver. Posts shall be installed a minimum of 2 ft. into the ground. If hand set, all backfill material shall be thoroughly tamped. Wood posts may be sharpened to a dull point if power
driven. Posts damaged by power driving shall be removed and replaced prior to final acceptance. The tops of all wood posts shall be cut at a 30-degree angle. The wood posts may, at the option of the Contractor, be cut at this angle either before or after the posts are erected.

The fence geotextile shall be attached to the wood posts with one 2” galvanized wire staple across each cable or to the steel posts with wire or other acceptable means.

Place construction stakes to establish the location of the safety fence in accordance with Article 105-9 or Article 801-1 of the Standard Specifications. No direct pay will be made for the staking of the safety fence. All stakeouts for safety fence shall be considered incidental to the work being paid for as “Construction Surveying”, except that where there is no pay item for construction surveying, all safety fence stakeout will be performed by state forces.

The Contractor shall be required to maintain the safety fence in a satisfactory condition for the duration of the project as determined by the Engineer.

(B) Boundary Flagging

Boundary flagging delineation of interior boundaries shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6” into the ground. Interior boundaries may be staked on a tangent that runs parallel to buffer but must not encroach on the buffer at any location. Interior boundaries of hand clearing shall be identified with a different colored flagging to distinguish it from mechanized clearing.

Boundary flagging delineation of interior boundaries will be placed in accordance with Article 105-9 or Article 801-1 of the Standard Specifications. No direct pay will be made for delineation of the interior boundaries. This delineation will be considered incidental to the work being paid for as Construction Surveying, except that where there is no pay item for construction surveying the cost of boundary flagging delineation shall be included in the unit prices bid for the various items in the contract. Installation for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall consist of wooden stakes on 25 feet maximum intervals with highly visible orange flagging attached. Stakes shall be installed a minimum of 6” into the ground. Additional flagging may be placed on overhanging vegetation to enhance visibility but does not substitute for installation of stakes.

Installation of boundary flagging for delineation of all jurisdictional boundaries at staging areas, waste sites, or borrow pits shall be performed in accordance with Subarticle 230-4(B)(5) or Subarticle 802-2(F) of the Standard Specifications. No direct pay will be made for this delineation, as the cost of same shall be included in the unit prices bid for the various items in the contract.

The Contractor shall be required to maintain alternative stakes and highly visible flagging in a satisfactory condition for the duration of the project as determined by the Engineer.

4.0 MEASUREMENT AND PAYMENT

Safety Fence will be measured and paid as the actual number of linear feet of polyethylene or polypropylene fence installed in place and accepted. Such payment will be full compensation including but not limited to furnishing and installing fence geotextile with necessary posts and post
bracing, staples, tie wires, tools, equipment and incidentals necessary to complete this work.

Payment will be made under:

**SAFETY FENCE**

**SP-17, TEMPORARY SEWER ABANDONMENT AND RECONFIGURATION**

Work covered in this special provision consists of all labor and materials required to abandon temporary sewer pipe and temporary manhole sections, including shaping new manhole troughs, as shown in the Sanitary Sewer Plans.

Payment will be made under:

**TEMPORARY SEWER ABANDONMENT AND RECONFIGURATION**
NOTICE OF AWARD

TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
35 Cabarrus Ave. W
Concord, North Carolina 28026-0308

PROJECT: Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement
Project No. 2017-026

You are hereby notified that the bid submitted by you for the above named project in response to the City of Concord’s Invitation to Bid, dated April 23, 2019 in the amount of

_______________________________ and __________/100 DOLLARS

($____________________) has been accepted.

You are hereby required to execute the formal AGREEMENT with the City of Concord City Council and to furnish any and all Contractor’s Bond(s), Certificate of Insurance and Power of Attorney(s) along with other documents pertaining to the work as designated by the City of Concord.

If you fail to execute said AGREEMENT and to furnish this and any other required documents pertaining to the work within ten (10) days from the date of delivery of this NOTICE OF AWARD, said Owner will be entitled to consider all your rights arising out of the Owner’s acceptance of your bid as abandoned and to award the work covered by your proposal to another, or to re-bid the work or otherwise dispose thereof as the Owner may see fit.

Dated this the ________ day of ________________, 20__

City of Concord, North Carolina

By: ____________________________
Title: City Manager

CONTRACTOR

By: ____________________________
Title: __________________________

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above NOTICE OF AWARD is hereby acknowledged this the ____ day of ____________, 20__.
NOTICE TO PROCEED

TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
35 Cabarrus Ave. W
Concord, North Carolina 28026-0308

PROJECT: Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement
Project No. 2017-026

Contract Amount: ____________________________ and ___/100 DOLLARS
($__________________________).

You are hereby notified to commence work on or before the _____ day of _____, 20___, pending acceptance of your Certificate of Insurance and any other required documents, and are to fully complete the work by the _____ day of _________________, 20___.

Your project final completion date is therefore the __________ day of ________________, 20__, and as set forth in the above named project’s schedule unless an extension is granted by the City of Concord Director of Engineering in writing.

City of Concord, North Carolina

By: ________________________________

Title: City Manager

Dated this the ____ day of ____________, 20__.
STANDARD FORM CONSTRUCTION CONTRACT (Revised 07/03/18)

This contract (together with all exhibits and valid amendments, the “Agreement” or the “Contract”) is made and entered into as of the ___ day of ______________, 20____, by the City of CONCORD (“City”) and ______________ (“Contractor”), ( ) a corporation, ( ) a professional corporation, ( ) a professional association, ( ) a limited partnership, ( ) a sole proprietorship, or ( ) a general partnership; organized and existing under the laws of the State of _________________________.

Sec. 1. Background and Purpose.

The Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement project consists of the removal of two existing sets of culverts, the construction of two double-barrel sets of culverts, and associated services that will include relocation of water mains including a fire hydrant, relocation of gravity sewer mains including the construction of a temporary sewer lines, coordination with utility agencies on other utility adjustments by others, roadway pavement reconstruction, and other appurtenances along Chelwood Drive and Chadbourne Avenue, Concord NC.

Sec. 2. Services and Scope to be Performed. The Contractor shall provide the services at the charges set forth either in this paragraph or in Exhibit “A”. Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

In this Contract, “services” means the services that the Contractor is required to perform pursuant to this Contract and all of the Contractor’s duties to the City that arise out of this Contract. Any amendments, corrections, or change orders by either party must be made in writing signed in the same manner as the original. (This form may be used for amendments and change orders.) The City reserves the right to refuse payment for any work outside that authorized herein or pursuant to a duly approved amendment or change order.

Sec. 3. Complete Work without Extra Cost. Unless otherwise provided, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.

Sec. 4. Compensation. The City shall pay the Contractor for the Work as described in this paragraph below OR as described in Exhibit “A” attached. In the event of a conflict, the provisions of this paragraph shall control. Any additional expenses or charges shall only be paid after both the City and the Contractor agree to and execute a written change order. The City shall not be obligated to pay the Contractor any fees, payments, expenses or compensation other than those authorized herein or pursuant to a duly-approved amendment or change order.

Sec. 4a. Retainage. The City shall withhold no retainage on Contracts having a “total project cost” of less than $100,000.00. The City may withhold retainage on contracts having a total project cost between $100,000 and $200,000. The City shall withhold retainage on contracts whose total project cost exceeds $300,000. When withheld, retainage shall equal no more than five percent of each progress payment. When the project is fifty per cent complete, the City shall not retain anything from future project payments provided that (i) the surety concurs in writing, (ii) the Contractor continues to perform satisfactorily, (iii) any non-conforming work identified in writing by the architect, engineer(s) or City has been corrected by the Contractor and accepted by the architect, engineer(s) or City. However, if the City determines that the Contractor’s performance is unsatisfactory, the City may withhold up to five percent retainage from each project payment. The City may withhold additional amounts above five percent for unsatisfactory job progress, defective construction not remedied, disputed work, third party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

Definitions:

“Total Project Cost”: Total value of the Contract and any approved change orders or amendments.

“Project is Fifty Percent Complete”: When the Contractor’s validly-issued gross project invoices (excluding the value of the materials stored off-site) equal or exceed fifty percent of the value of the Contract, except that the value of
materials stored on-site shall not exceed twenty percent of the Contractor’s gross project invoices for the purpose of determining whether the project is fifty percent complete.

**Sec. 5. Term.** The Contractor shall commence work within ten (10) days of the date of its receipt of written Notice to Proceed from the City. The date that is ten (10) days from the date of the Contractor’s receipt of the Notice to Proceed shall be the “Commencement Date.” All work as set forth in the Scope of Services in Exhibit “A” shall be completed within three hundred and sixty-five (365) calendar days of the Commencement Date. The date that is three hundred and sixty-five (365) calendar days from the Commencement Date shall be the “Completion Date.” Time is of the essence with regard to this Project. If Contractor’s obligations are not completed by the Completion Date, the City reserves the right to nullify this Agreement, order the Contractor to immediately cease all work under this Agreement and vacate the premises, and to seek professional services equivalent to those outlined in Exhibit “A.” The Contractor shall be held accountable for all damages incurred by the City as a consequence of the missed Completion Date. The exercise of any of these rights by the City shall not be interpreted to prejudice any other rights the City may have under this Agreement or in law or equity. This Contract shall not be automatically extended unless agreed to in writing by the City or as provided in Exhibit “A”.

**Sec. 6. Contractor’s Billings to City.** Payments will be made in accordance with the schedule found in this section below OR attached at Exhibit “A”. Contractor shall submit an original pay request (invoice) to the City Purchasing Agent by the first of each month in order to expedite payment. Upon receipt of the request the City Purchasing Agent shall verify the amounts and if correct forward the request to the Accounts Receivable Division of the Finance Dept. Final payment on the Contract shall be made in 45 days, except in the case of retainage. Within 60 days after the submission of the final pay request, the City (with the written consent of the surety) shall release to the Contractor all retainage payments IF the City receives a certificate of substantial completion from the architect, engineer or designer-in-charge of the project OR the City receives beneficial occupancy and use of the project. In either case, the City may retain up to 2.5 times the estimated value of the work to be completed or corrected.

**Sec. 7. Insurance.** Contractor shall maintain and cause all sub-contractors to maintain insurance policies at all times with minimum limits as follows:

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Minimum Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers’ Compensation</td>
<td>$500,000 each accident, $500,000 bodily injury by disease each employee, $500,000 bodily injury by disease policy limit</td>
</tr>
<tr>
<td>General Liability</td>
<td>$1,000,000 per occurrence regardless of the contract size</td>
</tr>
<tr>
<td>Automobile Liability</td>
<td>$1,000,000 per occurrence regardless of the contract size</td>
</tr>
<tr>
<td>Umbrella</td>
<td>☑ $1,000,000 per occurrence if contract does not exceed 180 days; otherwise,</td>
</tr>
<tr>
<td></td>
<td>☒ $2,000,000 per occurrence</td>
</tr>
</tbody>
</table>

Contractor shall provide a Certificate of Insurance to the City listing the City as an additional insured. Such Certificate shall be in a form acceptable to the City.

**Sec. 8. Documentation Requirements:**

A. Contractor shall provide the City with a Certificate of Insurance for review prior to the issuance of any contract or Purchase Order. Certificates of insurance must be submitted on an Acord Form (revised 2010/05), and the City must be named as additional insured on all lines of coverage, except for Professional liability and Workers’ Compensation. Contractor shall provide a Certificate of Insurance to the City listing the City as additional insured as required by written contract. The General Liability, Automobile Liability and Workers Compensation policies include a Waiver of Subrogation in favor of the City of Concord. The Umbrella Policy shall follow the form of the General Liability and Automobile Liability Policies. All Certificates of Insurance will require written notice by the insurer or Contractor’s agent in the event of cancellation, reduction or other modifications of coverage by the insurer. Such notice shall be not less than 30 days for nonrenewal by the insurer, not less than 10 days for cancellation due to nonpayment of the premium and as soon as possible for all other types of modifications. In addition to the notice requirement above, Contractor shall provide the City with written notice of cancellation, reduction, or other modification of coverage of insurance whether instigated by the insurer or by the Contractor immediately upon
Contractor’s receipt of knowledge of such modifications. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all loses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the insured period in which the initial contract period begins and shall be renewed by the Contractor for each subsequent renewal period of the insurance for so long as the contract remains in effect.

The City shall be named as an additional insured on all policies except Workers’ Compensation and professional liability and it is required that coverage be placed with “A” rated insurance companies acceptable to the City. Statement should read, “City of Concord is added as an additional insured as evidenced by an endorsement attached to this certificate.” Failure to maintain the required insurance in force may be cause for termination of this Agreement. In the event that the Contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the Agreement without notice.

Without limiting the coverage required pursuant to this Agreement, Contractor shall provide Workers’ Compensation insurance if it employs three or more employees. The Worker’s Compensation insurance shall have the North Carolina mandated statutory limits. Contractor shall fully comply with all applicable laws including, but not limited to, North Carolina’s Workers’ Compensation Act (Chapter 97 of the NC General Statutes).

B. Contractor shall provide a completed W-9 form to the City prior to execution by the City of this Agreement.

Sec. 9. Performance of Work by Contractor.

(a) The Contractor warrants that all work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 1 year from the date of issuance by the City of written final completion of the work.

(b) The Contractor shall remedy at the Contractor’s expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to City - owned or controlled real or personal property, when that damage is the result of--

   (1) The Contractor's failure to conform to contract requirements; or

   (2) Any defect of equipment, material, workmanship, or design furnished.

(c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(d) The City shall notify the Contractor, in writing, within a reasonable time, not to exceed 30 days, after the discovery of any failure, defect, or damage.

(e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time, not to exceed 30 days unless otherwise agreed in writing and signed by the City Manager or his designee, after receipt of notice, the City shall have the right to replace repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall--

   (1) Obtain all warranties that would be given in normal commercial practice,
(2) Require all warranties to be executed, in writing, for the benefit of the City, if directed to do so by the City; and

(3) Enforce all warranties for the benefit of the City, if directed to do so by the City.

(g) In the event the Contractor’s warranty has expired, the City may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the City nor for the repair of any damage that results from any defect in City-furnished material or design.

Sec. 10. Performance of Work by City. If the Contractor fails to perform the Work in accordance with the schedule referred to in Exhibit “A”, the City may, in its discretion, perform or cause to be performed some or all of the Work, and doing so shall not waive any of the City’s rights and remedies. Before doing so, the City shall give the Contractor reasonable notice of its intention. The Contractor shall reimburse the City for all costs incurred by the City in exercising its right to perform or cause to be performed some or all of the Work pursuant to this section.

Sec. 11. Attachments. Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

The following attachments are made a part of this Contract and incorporated herein by reference:

(a) Exhibit “A” – Bid Form
(b) Exhibit “B” – Standard Form of Performance Bond
(c) Exhibit “C” – Special Provisions
(d) Exhibit “D” – Contractor must execute the Affidavit attached as Exhibit “D”, attesting to compliance with state and federal laws related to E-Verify. *This requirement only applies to contracts that fall within the formal bidding range.
(e) Exhibit “E” – Tax Form(s).
(f) Exhibit “F” – Certificate of Insurance.
(g) Exhibit “G” - Drawings

In case of conflict between an attachment and the text of this contract excluding the attachment, the text of this contract shall control. Any attachment that materially alters the standard terms contained herein must be reviewed by the City Attorney and approved by the City in writing.

Sec. 12. Notice. (a) All notices and other communications required or permitted by this Contract shall be in writing and shall be given either by personal delivery, fax, or certified United States mail, return receipt requested, addressed as follows:

To the City:
Sue Hyde, Director of Engineering
City of Concord
P.O. Box 308
Concord, NC 28026
Fax Number: (704) 786-4521

To the Contractor:
VaLerie Koleczynski, Esq.
City Attorney
PO Box 308
Concord, NC 28026
Fax Number: (704) 784-1791

(b) Change of Address, Date Notice Deemed Given: A change of address, fax number, or person to receive notice may be made by either party by notice given to the other party. Any notice or other communication under this Contract shall be deemed given at the time of actual delivery, if it is personally delivered or sent by fax. If the notice or other communication is sent by US Mail, it shall be deemed given upon the third calendar day following the day on which such notice or other communication is deposited with the US Postal Service or upon actual delivery, whichever first occurs.
Sec. 13. Indemnification. To the maximum extent allowed by law, the Contractor shall defend, indemnify, and save harmless the City of Concord, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this Contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused solely by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Concord, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection – “Charges” means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney’s fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this Contract. This section is in addition to and shall be construed separately from any other indemnification provisions that may be in this Contract. This section shall remain in force despite termination of this Contract (whether by expiration of the term or otherwise) and termination of the services of the Contractor under this Contract.

Sec. 14. Corporate Status. If the Contractor is dissolved or suspended and the Contractor does not notify the City of such dissolution within three (3) business days from date of dissolution or suspension, and/or the corporate status is not reinstated within thirty (30) days, this Contract, at the sole option of the City and without prejudice to City’s other remedies, shall be declared null and void or the Contractor shall execute a new contract showing the Contractor’s correct legal entity.

Sec. 15. Miscellaneous.
(a) Choice of Law and Forum. This Contract shall be deemed made in Cabarrus County, North Carolina. This Contract shall be governed by and construed in accordance with the laws of North Carolina. The exclusive forum and venue for all actions arising out of this Contract shall be the appropriate division of the North Carolina General Court of Justice, in Cabarrus County. Such actions shall neither be commenced in nor removed to federal court. This section shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this section.
(b) Waiver. No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out this Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.
(c) Performance of Government Functions. Nothing contained in this Contract shall be deemed or construed so as to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.
(d) Severability. If any provision of this Contract shall be unenforceable, the remainder of this Contract shall be enforceable to the extent permitted by law.
(e) Assignment, Successors and Assigns. Without the City’s written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out this Contract. Unless the City otherwise agrees in writing, the Contractor and all assigns shall be subject to all of the City’s defenses and shall be liable for all of the Contractor’s duties that arise out of this Contract and all of the City’s claims that arise out of this Contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this Contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.
(f) Compliance with Law. In performing all of the Work, the Contractor shall comply with all applicable law. Without limitation, Contractor shall comply with the requirements of Article 2, Chapter 64 (Verification of Work Authorization) of the North Carolina General Statutes relating to E-Verify. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Pursuant to the requirements of the Iran Divestment Act, N.C.G.S. § 143C-6A-1, et. seq., Contractor certifies that that as of the Effective Date of this Agreement, Contractor is not on the Final Divestment List as created by the State Treasurer in compliance with N.C.G.S. § 143-6A-4 and located at www.nctreasurer.com/Iran. Furthermore, Contractor agrees that it will not enter into any subcontracts for the performance of this Agreement with any entity on the Final Divestment List.
(g) City Policy. THE CITY OPPOSES DISCRIMINATION ON THE BASIS OF RACE AND SEX AND URGES ALL OF ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.
(h) EEO Provisions. During the performance of this Contract the Contractor agrees as follows: (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated equally during employment, without
regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability. The Contractor shall post in conspicuous places available to employees and applicants for employment, notices setting forth these EEO provisions. (2) The Contractor in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or disability.

(i) No Third Party Right Created. This Contract is intended for the benefit of the City and the Contractor and not any other person.

(j) Principles of Interpretation. In this Contract, unless the context requires otherwise the singular includes the plural and the plural the singular. The pronouns “it” and “its” include the masculine and feminine. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The word “person” includes natural persons, firms, companies associations, partnerships, trusts, corporations, governmental agencies and units, and any other legal entities.

(k) Modifications, Entire Agreement. A modification of this Contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless the City Manager or other duly authorized official signs it for the City. This Contract contains the entire agreement between the parties pertaining to the subject matter of this Contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or referenced in this Contract.

(l) Corporate Seal. If a corporate seal is included by any party to this Contract, it is only for authentication purposes. This Contract is not signed under seal.

(m) No Employment Relationship. For all matters relating to this Agreement, Contractor shall be deemed an Independent Contractor. Nothing in this Agreement shall be construed in such a manner as to create an employee-employer relationship between City and Contractor.

(The following section applies to construction contracts only if amount is over $50,000)

Sec. 16. Bonding. Both performance and payment bonds for the full amount of this Contract are required to be attached. Instead of bonds, you may submit a deposit of money, certified check or government securities for the full amount of the Contract. The performance bond shall have a value equal to 100% of this Contract. This bond shall be conditioned upon faithful performance of the Contract in accordance with the plans, specifications and conditions of the Contract. The performance bond shall be solely for the protection of the City. The payment bond shall be in an amount equal to 100% of the Contract, and conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performance labor for which a contractor or subcontractor is liable.

Sec. 17. Dispute Resolution. It is understood and agreed that NCGS 143-128(f1-g) requires that disputes arising under an agreement for the erection, construction, alteration or repair of a building be subject to a dispute resolution process specified by the City. The amount in controversy shall be at least $15,000.00 before this dispute resolution procedure may be used. In compliance with this statutory provision, the City specifies this Section as the dispute resolution process to be used on this Project. It is further understood and agreed that this dispute resolution process is based on non-binding mediation and will only be effective to the extent that the Parties to any mediated dispute participate in the mediation in good faith. It is also understood and agreed that the City is under no obligation under any circumstance to secure or enforce the participation of any other Party in the mediation of any dispute subject to this Section and NCGS 143-128(f1-g).

This Section 17 does not apply to:

(a) The purchase and erection of prefabricated or relocatable buildings or portions of such buildings, except that portion of the work that must be performed at the construction site; or

(b) The erection, construction alteration or repair of a building when the cost of such building is $300,000 or less.

17.1 Any dispute arising between or among the Parties listed in Section 17.3 that arises from an agreement to construct the Project, including without limitation a breach of such agreement, shall be subject to non-binding mediation administered by the American Arbitration Association under its Construction Industry Mediation Rules (“Rules”), except as otherwise expressly set forth in this Section. To the extent any provision of the Rules
is inconsistent with the provisions of this Section, the provisions of this Section shall control. The mediation provided in this Section shall be used pursuant to this Agreement and NCGS 143-128(f1-g) and is in lieu of any dispute resolution process adopted by the North Carolina State Building Commission, which process shall not apply to this Project.

17.2 For purposes of this Section the following definitions shall apply:

a. **Agreement to construct the Project** means an agreement to construct the Project that is subject to the requirements of NCGS 143-128 and does not include any agreement related to the Project that is not subject to said statute.

b. **Construct** or **construction** refers to and includes the erection, construction, alteration or repair of the Project.

c. **Party** or **Parties** refers to the parties listed in Section 16.4.

d. **Project** means the building to be erected, constructed, altered or repaired pursuant to this Agreement.

17.3 The City and any Party contracting with the City or with any first-tier or lower-tier subcontractor for the construction of the Project agree to participate in good faith in any mediation of a dispute subject to this Section and NCGS 143-128(f1-g), including without limitation the following Parties (if any): architect(s), engineer(s), surveyor(s), construction manager, construction manager at risk, prime contractor(s), surety(ies), subcontractor(s), and supplier(s).

17.4 In order to facilitate compliance with NCGS 143-128(f1-g), the Contractor and all other Parties shall include this Section 17 in every agreement to which it (any of them) is a Party for the construction of the Project without variation or exception. Failure to do so will constitute a breach of this Agreement, and the Contractor or other Party failing to include this Section in any agreement required by this Section shall indemnify and hold harmless the remaining Parties from and against any and all claims, including without limitation reasonable attorney fees and other costs of litigation, arising in any manner from such breach. Notwithstanding the foregoing provisions of this Section, it is expressly understood and agreed that the Parties are intended to be and shall be third-party beneficiaries of the provisions of this Section and can enforce the provisions hereof.

17.5 The following disputes are not subject to mediation: (i) a dispute seeking a non-monetary recovery; and (ii) a dispute seeking a monetary recovery of $15,000 or less.

17.6 A dispute seeking the extension of any time limit set forth in an agreement to construct the Project shall be subject to mediation pursuant to this Section and NCGS 143-128(f1-g), but only if the damages which would be suffered by the Party seeking the extension would exceed $15,000 if the disputed extension is denied. To the extent that liquidated damages are set forth in such agreement as the measurement of damages for failure by such Party to meet such time limit, such liquidated damages shall be the exclusive standard for determining the amount of damages associated with such dispute.

17.7 For purposes of this Section, a dispute is limited to the recovery of monetary damages from the same transaction or occurrence against a single Party or two or more Parties alleged to be liable jointly, severally or in the alternative. Two or more disputes may not be consolidated or otherwise combined without the consent of all Parties to such disputes.

17.8 In addition to such matters as are required by the Rules, a request for mediation shall include the amount of the monetary relief requested.

17.9 Prior to requesting mediation, a Party must form a good faith belief that it is entitled under applicable law to recover the monetary amount to be included in the request from one or more of the remaining Parties. Such belief must be based on a reasonable and prudent investigation into the dispute that is the subject of the request. The request for mediation must be based on such investigation and may not include any amount or
the name of any remaining Party, unless supported by such investigation and good faith belief by the Party requesting the mediation.

17.10 If a Party breaches any provision of Section 17.9, it shall indemnify and hold harmless all other Parties from any costs, including reasonable attorney fees and other costs of litigation, and damages incurred by such other Parties that arise from such breach.

17.11 All expenses incurred by a Party to a dispute in preparing and presenting any claim or defense at the mediation shall be paid by the Party. Such expenses include without limitation preparation and production of witnesses and exhibits and attorney fees. All other expenses of the mediation, including filing fees and required traveling and other expenses of the mediator, shall be borne as follows: one half by the Party requesting the mediation, with the remaining parties paying equal shares of the remaining expenses and costs; provided that, if the City is named as a party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties. If more than one Party to a dispute requests a mediation, the mediation expenses and costs to be divided among the Parties shall be borne equally by the Parties to the dispute; provided that, if the City is named as a Party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties.

17.12 The mediation shall be held at a location agreeable to the mediator and all of the Parties; provided that, if no agreement can be reached, the mediation will be held at such location in Cabarrus County as the mediator shall determine.

17.13 The provisions of this Section are subject to any other provision of this Agreement concerning the submission, documentation and/or proof of any claim or dispute. Such other provisions shall apply in full force and shall be satisfied as a condition precedent to mediation pursuant to this Section.

17.14 The Parties understand and agree that mediation in accordance with this Section shall be a condition precedent to institution of any legal or equitable proceeding seeking monetary recovery based on any dispute that is subject to mediation pursuant to this Section.

Sec. 18. Breach. In the event of a violation of any material term of this Agreement, the non-violating party may terminate the Agreement upon written notice. Such notice shall state the violation with specificity and shall give ten (10) days to cure the violation. The cure period shall be measured as ten (10) days from the date of receipt of notice by the violating party, or, if the date is not known, then thirteen (13) days from the date the notice is placed in the United States Post. If the violation remains uncorrected at the end of the cure period, the Agreement shall be terminated without any further action by the non-violating party. Any remaining disputes shall be subject to the dispute resolution procedure set forth above, if applicable.

[Signature Page to Follow]
IN WITNESS WHEREOF, the City of Concord and the Contractor have caused this Contract to be executed by their respective duly authorized agents or officers.

CITY OF CONCORD:  

By: ____________________________  
    City Manager  

Date: ____________________________  

ATTEST BY:  

______________________________  
City Clerk  

APPROVED AS TO FORM:  

______________________________  
Attorney for the City of Concord

CITY OF CONCORD:  

By: ____________________________  
    Signature of President/Vice President/Manager/Partner

Printed Name: ____________________________  

Title: ____________________________

ATTEST:  

______________________________  
Signature of Vice President, Secretary, or other officer

PRINTED NAME: ____________________________  

Title: ____________________________

APPROVAL BY CITY FINANCE OFFICER

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

______________________________  
Signature
EXHIBIT “D”

STATE OF NORTH CAROLINA
COUNTY OF CABARRUS

AFFIDAVIT

**************************

I, _________________________________(the individual signing below), being duly authorized by and on behalf of __________________________________________ (the legal name of the entity entering the contract, "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-26.

2. Employer understands that Employers Must Use E-Verify. Each employer (as such term is defined in NCGS § 64-25), after hiring an employee (as such term is defined in NCGS § 64-25) to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a). Employer attests that Employer is in compliance with the requirements of the federal and state laws relevant to E-verify.

3. Employer is a person, business entity, or other organization that transacts business in the State of North Carolina. Employer employs 25 or more employees in this State. (mark Yes or No)
   a. YES _____, or  b. NO _____.

4. Employer attests that all subcontractors employed by it as part of this contract comply with the requirements of E-Verify, and Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer as part of any contract with the City of Concord.

5. Employer shall have a continuing duty to inform the City of Concord of any changes to this sworn information.

This ____ day of _______________, 20___.

Signature of Affiant
Print or Type Name: _________________________

________________________________________
State of North Carolina  County of Cabarrus
(Signed and sworn to (or affirmed) before me, this the ______
day of ________________, 20____.
My Commission Expires:
______________________________________
Notary Public

(Affix Official/Notarial Seal)
EXHIBIT “E”

TAX FORM(S)
EXHIBIT “F”

CERTIFICATE OF INSURANCE

4824-4465-9749, v. 1
City of Concord  
Post Office Box 308  
Concord, North Carolina 28026-0308

<table>
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<td>Percent Payment Complete:</td>
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APPLICATION FOR PAYMENT NO. ___ SHEET NO. ___ OF ___

PERIOD FROM: ___ TO: ___

CERTIFICATE OF THE CONTRACTOR

To the best of my knowledge and belief, I certify that this periodical estimate is correct and all work has been performed and materials supplied in full accordance with the terms and conditions of the contract documents between the undersigned contractor and the City of Concord.

GROSS AMOUNT OF PARTIAL PAYMENT - $___

LESS: RETAINAGE AT ___ PERCENT - $___

PREVIOUS PAYMENT - $___

LIQUIDATION DAMAGES

__ DAYS @ $ ___ - $___

OTHER DEDUCTIONS: $___

TOTAL DEDUCTIONS - $___

NET AMOUNT DUE THIS ESTIMATE - $___

Name of Contractor: ________________________________ Address: ________________________________

Signed: ________________________________ Title: ________________________________ Date: ______________

CERTIFICATE OF CONSTRUCTION ADMINISTRATOR/ENGINEER

I certify that I have verified this periodical estimate and that to the best of my knowledge and belief, it is a true and correct statement of work performed and materials supplied under the contract.

Consultant Engineer: ________________________________ Date: ________________________________

Construction Administrator: ________________________________ Date: ________________________________

APPROVED AND PAYMENT RECOMMENDED:

CITY OF CONCORD

Signed: ________________________________ Title: ________________________________ Date: ______________
### Project Title: Chelwood Dr. Culvert Replacement and Chadbourne Ave. Culvert Replacement – 2017-026

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Base Bid: $0.00
CITY OF CONCORD
CONCORD, NORTH CAROLINA
CONTRACT CHANGE ORDER

Date: 

Project Title: Chelwood Dr. Culvert Replacement and Chadbourne Ave. Culvert Replacement
Project #: 2017-026

Owner: City of Concord

To: (CONTRACTOR)

Account No.
Purchase Order No.

You are hereby requested to make the following changes in this Contract to comply with the provisions of the attached and/or the original Contract Documents.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description of Changes</th>
<th>Additions</th>
<th>Deductions</th>
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<tbody>
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</table>

Original Contract Amount
Net Changes by Previous Change Orders
Net Changes this Change Order $0.00

New Contract Amount $0.00

The Contract Time will be _____________ by _____________ calendar days.
The Completion Date as of this Change Order is:

Accepted: (Contractor)
By: 
Date:

Accepted: CITY OF CONCORD
By: 
Date:

This instrument has been pre-audited in the manner required by Local Government Budget and Fiscal Control Act.

By: 
Date:

Finance Director
CERTIFICATE OF INFRASTRUCTURE COMPLETION

Project Title: Chelwood Ave. Culvert Replacement and Chadbourne Ave. Culvert Replacement - Project #: 2017-026

<table>
<thead>
<tr>
<th>CONTRACTOR NAME &amp; ADDRESS:</th>
<th>OWNER NAME &amp; ADDRESS:</th>
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MISCELLANEOUS INFORMATION:

INSPECTOR:

The following items have been inspected, reviewed and found to be complete in substantial accordance with the approved plans and specifications. The dates of completion are those agreed upon by the City of Concord when all construction work and testing was completed. These dates DO NOT initiate the start of any warranty periods of said items(s). Warranty periods shall begin as specified on the CERTIFICATE OF FINAL COMPLETION.

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FIELD ORDER

CITY OF CONCORD

ENGINEERING DEPARTMENT

Post Office Box 308
Concord, North Carolina 28026-0308

Project Title: Chelwood Dr. Culvert Replacement & Chadbourne Ave. Culvert Replacement

Project #: 2017-026

FIELD ORDER NO ______ CONTRACT __________________ DATE __________________

PROJECT ___________________________________________________________________

LOCATION __________________________________________________________________

e) TO: ________________________________________________________________

THIS ORDER AUTHORIZES YOU TO PROCEED WITH THE ALTERATIONS AND/OR ADDITIONS TO THE WORK AS DESCRIBED HEREIN, IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF OUR STANDARD FORM OF CONTRACT.

DESCRIPTION OF WORK: ___________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

☐ QUOTATION RECEIVED AND APPROVED BY THE CITY OF CONCORD.

☐ QUOTATION NOT RECEIVED. PLEASE FURNISH QUOTATION IMMEDIATELY TO THE CITY OF CONCORD FOR CHECK AND APPROVAL.

☐ TIME AND MATERIAL BASIS. FURNISH TIME AND MATERIAL REPORTS DAILY TO THE CITY OF CONCORD FOR VERIFICATION AND SIGNATURE.

☐ OTHER __________________________

AUTHORIZED BY: _________________________________
NORTH CAROLINA
SALES TAX
REPORT

OWNER:

CONTRACTOR:

Project Title: Chelwood Dr. Culvert Replacement and Chadbourne Ave. Culvert Replacement
Project #: 2017-026

PURCHASE ORDER:

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TOTAL

I certify that the above listed vendors were paid sales tax upon purchases of materials during the period covered by the Construction Estimate, and the property upon which such taxes were paid with or will be used in the performance of this contract. No tax on purchases or rentals of tools and/or equipment is included in the above list. All of the materials above became a part of or is annexed to the building or structure being erected, altered or repaired.

Contractor or Subcontractor Name
(PRINT)
Signature:
Name (print):
Title:

SWORN AND SUBSCRIBED BEFORE ME THIS _____ DAY OF ________, ___.

NOTARY PUBLIC
MY COMMISSION EXPIRES:

73
North Carolina One Call Center, Inc.

North Carolina One Call Center, Inc., a non-profit organization funded by participating utility companies and municipalities in the interest of community and job safety and improved service through damage reduction to the utilities.

**A ONE CALL TOLL FREE TELEPHONE NUMBER, 811 or 1-800-632-4949, PROVIDES AN AVENUE TO ALL OF THE PARTICIPATING MEMBERS FROM ANY POINT WITHIN THE STATE OF NORTH CAROLINA.**

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any manner in which buried utilities may be damaged is requested to call the toll-free number between the hours of 6:00 a.m. and 10:00 p.m., Monday through Friday, forty-eight hours before starting the proposed work.

Within minutes of your telephone call, the participating members will be made aware of your plans and will be given pertinent information that has been provided by you about your planned work. You will be told the names of the participating members from whom you can expect a response - if there are buried facilities in the path of your activity, the route of the utilities will be staked and/or marked at no expense to you. If there are no facilities in the area of the planned work, you will be called or notified by a representative of a participating company accordingly.

Should a non-participating utility operator be serving your area, we recommend that you call them on an individual basis. All utility operators, whether company or municipality, will be provided an opportunity to become a member of North Carolina One Call Center, Inc.

Naturally, knowing the route of utilities, the excavator is expected to exercise caution and to avoid damage as the project progresses.

Damage prevention does not just happen – it is a planned and orderly process through which each of us can participate - **YES, WE CAN AND WE WILL DRAMATICALLY REDUCE DAMAGES TO THE UTILITIES IN THE STATE OF NORTH CAROLINA!! THANKS FOR YOUR HELP.**

**BEFORE YOU DIG**
**IN THE INTEREST OF COMMUNITY AND JOB SAFETY AND IMPROVED SERVICE**

**CALL NORTH CAROLINA ONE CALL CENTER, INC.**
**811 or 1-800-632-4949**

North Carolina One Call Center, Inc
2300 West Meadowview Rd., Suite 227
Greensboro, NC 27407
www.nc811.org
SECTION II

GENERAL CONDITIONS

Please reference online at:


Dated: 01/08/2010
APPENDIX A

GEOTECHNICAL BORING LOGS
Chadburne & Cheldwood Culverts
Cabarrus
2017-026

LOG OF BORING No. B-1

Date Drilled: 12/18/2017
Supervisor: C. Garcia Zaragoza

Casing Length: Ground Elevation: 629.2

Hammer Type: ☑ Automatic ☐ Other:

Water Level: 11.1
Drilling Method: HSA

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3</td>
<td>ASPHALT Aggregate Base Course</td>
</tr>
<tr>
<td></td>
<td>FILL- Very Loose to Loose, Brown, Silty SAND(SM)</td>
</tr>
<tr>
<td>0.6</td>
<td>FILL-Soft, Red, Clayey SILT (MH)</td>
</tr>
<tr>
<td>6.5</td>
<td>Split Spoon Refusal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample No./Type</th>
<th>N Value</th>
</tr>
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<td>SS WOHOH 1 1</td>
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<td>SS 500 100</td>
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</tr>
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STD. PENETRATION TEST DATA (blows/ft)

5 10 20 40 70

LEGEND

SS - Split Spoon
ST - Shelby Tube
AWG - Rock Core, 1-1/8"
NQ - Rock Core, 1-7/8"
CU - Cuttings
CT - Continuous Tube

HSA - Hollow Stem Auger
CFA - Continuous Flight Augers
RW - Rotary Wash
RC - Rock Core
DC - Driving Casing
**LOG OF BORING No. B-3**

**Chadburne & Cheldwood Culverts**

**Cabarrus**

**2017-026**

**Date Drilled:** 12/18/2017  
**Supervisor:** C. Garcia Zaragoza  
**Notes:**

**Casing Length:**  
**Ground Elevation:** 628.2  
**Hammer Type:** □ Gravity  □ Automatic  □ Other:

**Water Level:** 13.4  
**Drilling Method:** HSA

<table>
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<tr>
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<th>MATERIAL DESCRIPTION</th>
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</thead>
<tbody>
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<td></td>
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</tr>
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<td>0.6</td>
<td></td>
<td>FILL-Soft, Red Silty CLAY (CL)</td>
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<tr>
<td>623.2</td>
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<td>ALLUVIAL-Very Soft, Grey, Silty CLAY(CH)</td>
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<td></td>
<td>8.0</td>
<td>RESIDUAL- Very Dense, Tan, Brown, Silty SAND (SM)</td>
</tr>
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<td></td>
<td>13.0</td>
<td>Split Spoon Refusal at 14.2 Feet.</td>
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<td></td>
<td>13.8</td>
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**STD. PENETRATION TEST DATA**  
(blow/sf)

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<thead>
<tr>
<th>Sample No./Type</th>
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<th>2nd 5&quot;</th>
<th>3rd 5&quot;</th>
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</tr>
<tr>
<td>SS</td>
<td>12</td>
<td>50/1</td>
<td>100</td>
<td></td>
</tr>
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</table>

**SAMPLER TYPE**  

SS - Split Spoon  
ST - Shelby Tube  
AWG - Rock Core, 1-7/8"  
NQ - Rock Core, 1-7/8"  
CU - Cuttings  
CT - Continuous Tube

**DRILLING METHOD**  

HSA - Hollow Stem Auger  
CFA - Continuous Flight Augers  
RW - Rotary Wash  
RC - Rock Core  
DC - Driving Casing
**LOG OF BORING No. B-4**

**Chadburne & Cheldwood Culverts**

**Cabarrus**

**2017-026**

**Date Drilled:** 12/18/2017  
**Supervisor:** C. Garcia Zaragoza

**Casing Length:**  
**Ground Elevation:** 672.03

**Hammer Type:**  
- [ ] Gravity
- [x] Automatic
- [ ] Other

**Water Level:** 13.2  
**Drilling Method:** HSA

### MATERIAL DESCRIPTION

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<th>Depth (ft)</th>
<th>MATERIAL DESCRIPTION</th>
<th>Graphic Log</th>
<th>Sample No./Type</th>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FILL - Very Loose, Red, Brown, Silty SAND (SM)</td>
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<td>ALLUVIAL - Very Loose, Grey, Medium to Coarse SAND(SM)</td>
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**STD. PENETRATION TEST DATA (blows/ft)**

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<tr>
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<td></td>
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</table>

**LEGEND**

- SS - Split Spoon
- ST - Shelby Tube
- AWG - Rock Core, 1-1/8"
- NQ - Rock Core, 1-7/8"
- CU - Cuttings
- CT - Continuous Tube
- HSA - Hollow Stem Auger
- CFA - Continuous Flight Augers
- RC - Rock Core
- DC - Driving Casing
- RW - Rotary Wash
Chadburne & Cheldwood Culverts
Cabarrus
2017-026

LOG OF BORING No. B-5
Station: Offset:

Date Drilled: 12/18/2017 Supervisor: C. Garcia Zaragoza
Casing Length: Ground Elevation: 621.6
Hammer Type: ☑ Gravity ☑ Automatic ☐ Other:
Water Level: 14.1 Drilling Method: HSA

<table>
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<th>Elevation (ft)</th>
<th>Depth (ft)</th>
<th>MATERIAL DESCRIPTION</th>
<th>Graphic Log</th>
<th>Sample Depth</th>
<th>Sample No./Type</th>
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<th>STD. PENETRATION TEST DATA (blows/ft)</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 10 20 40 70</td>
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<td>8.0</td>
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<td>FILL-very Soft, Tan, SAndy SILT (ML)</td>
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<td></td>
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<td></td>
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<tr>
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<td></td>
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<td>5 10 20 40 70</td>
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Notes:

LEGEND

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<th>SAMPLER TYPE</th>
<th>DRILLING METHOD</th>
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<tr>
<td>SS - Split Spoon</td>
<td>HSA - Hollow Stern Auger</td>
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<tr>
<td>ST - Shelby Tube</td>
<td>RW - Rotary Wash</td>
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<td>AWG - Rock Core, 1-1/8&quot;</td>
<td>CFA - Continuous Flight Augers</td>
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<td>DC - Driving Casing</td>
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<tr>
<td>NQ - Rock Core, 1-7/8&quot;</td>
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</tr>
<tr>
<td>CU - Cuttings</td>
<td></td>
</tr>
<tr>
<td>CT - Continuous Tube</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

NCDEQ 401
WATER QUALITY CERTIFICATION
APPROVAL LETTER
Ms. Carolina Garcia-Zaragoza Villa  
City of Concord  
35 Cabarrus Ave. W  
Concord, NC 28025

Subject: APPROVAL of 401 Water Quality Certification with Additional Conditions  
Chadbourne Ave./Chelwood Dr. Culvert Replacement

Dear Ms. Villa:

You have our approval, in accordance with the General Certification and those conditions listed below, for the purpose proposed in your application dated September 12, 2018 and received by the Division of Water Resources (the Division) on September 17, 2018. After reviewing your application, we have determined that this project is covered by Water Quality General Certification Number 4132 which can be viewed on our web site at [https://dq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-401-isolated-wetlands-waters-program](https://dq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-401-isolated-wetlands-waters-program). The General Certification allows you to use Nationwide Permit Number 3 once it is issued to you by the U.S. Army Corps of Engineers (COE). Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

The above noted Certification will expire when the associated 404 permit expires unless otherwise specified in the General Certification. It is advised that all conditions of the Certification are reviewed prior to initiation of the project. In addition to the requirements of the Certification, you must also comply with the following conditions:

1. This approval is only valid for the purpose and design that you described in your application. If you change your project, you must notify us in writing, and you may be required to send us a new application for a new Certification. If total wetland fills for this project (now or in the future) exceed one acre, or if total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required. If the property is sold, the new owner must be given a copy of the Certification and approval letter, and is thereby responsible for complying with all conditions. 15A NCAC 02H .0506 and 15A NCAC 02H .0507

2. The Mooresville Regional Office shall be notified in writing once construction at the approved impact areas has commenced. 15A NCAC 02H .0502 (e)
3. As discussed at the site, a slight modification with the construction of a “curb” within the culvert to maintain base flow, shall be utilized at the culvert located on Chadbourne Ave.

4. Approved Impacts:

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Amount Approved Temporary Impact</th>
<th>Amount Approved Permanent Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream</td>
<td>85 linear ft.</td>
<td>116 linear ft.</td>
</tr>
<tr>
<td>Wetland</td>
<td>0 acre</td>
<td>0 acre</td>
</tr>
</tbody>
</table>

5. Use of native vegetation and other soft stream bank stabilization techniques is recommended where practicable instead of riprap or other bank hardening methods. If riprap is necessary, it shall not be placed in the streambed, unless approved by DWR.

6. Rock ladder construction. The “steps” shall not exceed six (6) inches in height.

7. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers. 15A NCAC 02H .0506(b)(3)

8. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this Certification. 15A NCAC 02H.0506(b)(3)

9. The permittee shall report to the Mooresville Regional Office any noncompliance with this certification, any violation of stream or wetland standards [including but not limited to sediment impacts, and any violation of state regulated riparian buffer rules. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the applicant became aware of the circumstances. A written submission shall also be provided within 5 business days of the time the applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, if the noncompliance has not been corrected, the anticipated time compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Division may waive the written submission requirement on a case-by-case basis. 15A NCAC 02B .0200

10. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. 15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)

11. Upon completion of the project, the applicant shall complete and return the enclosed “Certificate of Completion” form to the 401/Wetlands Unit of the Division. 15A NCAC 02H .0507(c)

This Certification can be contested as provided in Articles 3 and 4 of the General Statute 150B by filing a written petition for an administrative hearing to the Office of the Administrative Hearings (hereby known as OAH). A petition form may be obtained from the OAH at http://www.ncoah.com/or by calling the OAH Clerk’s Office at (919) 431-3000.

Within sixty (60) calendar days of receipt of this notice, a petition must be filed with the OAH. A petition is considered filed when the original and one (1) copy along with any applicable OAH filing fee
is received in the OAH during normal office hours (Monday through Friday, 8:00 am to 5:00 pm, excluding state holidays).

The petitions may be faxed to the OAH at (919) 431-3100, provided the original and one (1) copy of the petition along with any applicable OAH filing fee is received by the OAH within five (5) business days following the faxed transmission. Mailing address for the OAH:

If sending via US Postal Service:
Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714

If sending via delivery service (UPS, FedEx, etc.)
Office of Administrative Hearings
1711 New Hope Church Rd.
Raleigh, NC 27609-6285

One (1) copy of the petition must also be served on DEQ as follows:

Mr. William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

This letter completes the review by the Division under Section 401 of the Clean Water Act. If you have any questions, please telephone Mr. Alan Johnson in the Mooresville Regional Office at 704-663-1699.

Sincerely,

W. Corey Basinger, Regional Supervisor
Water Quality Regional Operations Section
Mooresville Regional Office, DEQ

Attachments

cc: Cathy Janiczak, Army Corps of Engineers, Charlotte, email
DWR 401 & Buffer Permitting Branch file
MRO, Land Quality
CERTIFICATE OF COMPLETION

NCDWR Project No.: ___________________________  County: ___________________________

Applicant: ________________________________________________________________

Project Name: ____________________________________________________________

Date of Issuance of 401 Water Quality Certification: ____________________________

Certificate of Completion
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Wetland & Buffer Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC 27699-1617. This form may be returned to NCDWR by the applicant, the applicant’s authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

Applicant’s Certification
I, ____________________________________________, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: ___________________________  Date: ___________________________

Agent’s Certification
I, ____________________________________________, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: ___________________________  Date: ___________________________

Engineer’s Certification

_______ Partial     _______ Final

I, ____________________________________________, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature ___________________________  Registration No. ____________ Date ____________
APPENDIX C

USACE
GENERAL PERMIT VERIFICATION
U.S. ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: City of Concord  
Carolina Garcia-Zaragoza Villa

Address: 35 Cabarrus Ave, W  
Concord, NC 28025

Telephone Number: 704-786-4521  
E-mail: gzaragozac@concordnc.gov

Size (acres) 3  
Nearest Waterway Irish Buffalo Creek  
USGS HUC 03040105

Nearest Town Kannapolis  
River Basin Upper Pee Dee  
Coordinates Latitude: 35.488979  
Longitude: -80.632648

Location description: The project area is located 0.028 miles Northeast of the intersection of Broad Street and J Avenue in Cabarrus County. PIN: 56134608040000.

Description of projects area and activity: This verification authorizes the permanent stream impact of 116 linear feet of stream and the temporary impact of 85 linear feet of stream.

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 9/12/2018, and the enclosed plans Chadbourne Ave Culvert Replacement dated 9/11/2018 and Chelwood Drive Culvert Replacement dated 09/11/2018. 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 Catherine M. Janiczak at 704-510-1438 or Catherine.M.Janiczak@usace.army.mil.

Corps Regulatory Official: 587066  
Expiration Date of Verification: 03/18/2022
The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0
Action ID Number: SAW-2018-01794
County: Cabarrus

Permittee: City of Concord, Carolina Garcia-Zaragoza Villa

Project Name: Chadbourne Ave and Chelwood Drive Replacement Culvert

Date Verification Issued: 03/27/2019

Project Manager: Catherine M. Janiczak

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: Catherine M. Janiczak
Charlotte Regulatory Office
U.S Army Corps of Engineers
8430 University Executive Park Drive, Suite 615
Charlotte, North Carolina 28262
or
Catherine.M.Janiczak@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
THIS PROJECT CONSISTS OF THE INSTALLATION OF A 7'x6' DOUBLE BARREL CONCRETE BOX CULVERT UNDER CHADBOURNE AVE AND APPROXIMATELY 53'± LINEAR FEET OF 8" GRAVITY SEWER, 101'± LINEAR FEET OF 6" WATER MAIN, AND 1 FIRE HYDRANT. ALONG WITH APPURTENANCES AND OTHER ASSOCIATED PROJECT WORK, FOR THE PURPOSE OF PROVIDING STORM, WATER, AND SANITARY SEWER UPGRADES.

THE PROJECTED AMOUNT OF GROUND DISTURBANCE IS 0.84± ACRES.

WORK SHALL PROCEED IN SUCH A MANNER SO AS TO LIMIT THE AMOUNT OF GROUND DISTURBANCE BY HAVING ONLY ONE SECTION OF THE DITCH OPEN AT A TIME THEREBY REDUCING THE POTENTIAL FOR LARGE QUANTITIES OF SEDIMENT TO BE TRANSPORTED OFF SITE.

SEEDING OF DENUDED AREAS SHALL BE DONE AS SOON AS POSSIBLE, BUT IN NO CASE LONGER THAN SOIL STABILIZATION TIME FRAMES GIVEN IN THE PLANS. REMOVAL OF ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL ONLY BE DONE AFTER APPROVAL HAS BEEN COORDINATED WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY, THE CITY OF CONCORD, AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.


COMPLETION OF THIS PROJECT IS ANTICIPATED TO TAKE 120 DAYS AFTER NOTICE BY THE CITY OF CONCORD TO PROCEED. FINAL COMPLETION AND ACCEPTANCE OF THE WORK IS ANTICIPATED TO BE SPRING 2019.

NOTE:

CONDITIONS OF APPROVAL: NO WORK SHOWN IN THIS PLAN SHALL COMMENCE UNTIL THE CITY'S NOTICE TO PROCEED HAS BEEN ISSUED AND THE NCDEQ DWR 401 WATER QUALITY CERTIFICATION AND USACE SECTION 404 PERMIT APPROVALS ARE OBTAINED; AND ANY CONDITIONS IMPOSED BY NCDEQ DWR AND USACE SHALL BE CONSIDERED INCORPORATED HEREIN.
CHADBOURNE AVE
CULVERT REPLACEMENT
DEMO ASTM
PROJECT # : 2017-026

NOTES

1. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES AND SHRUBS DETERMINED TO REMAIN.

2. ALL EXISTING SERVICE CONNECTIONS TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL LOCATE AND MAKE PROVISIONS IN ACCORDANCE WITH THE CITY OF CONCORD FOR PROTECTION.

3. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS TO ALL BUSINESSES AND DWELLINGS, AND EASY ACCESS TO FIRE HYDRANTS. CONTRACTOR TO OPEN CUT ROADWAY AND REPLACE ACCORDING TO CITY OF CONCORD AND NCDOT STANDARDS. SEE SHEET 12 FOR TYPICAL ROADWAYS CROSS SECTION.

4. CONTRACTOR TO ENSURE THAT PROPERTY OWNER HAS ACCESS TO DRIVEWAY DURING CONSTRUCTION AT ALL TIMES. IF NEEDED, CONTRACTOR TO BUILD TEMPORARY DRIVEWAY WIDENING WITH DOT ABC MATERIAL. 15" STORM PIPE TO BE EXTENDED UNDER WIDENING. CONTRACTOR TO REINSTATE EXISTING DRIVEWAY AND DITCH TO EXISTING CONDITION.

5. CONTRACTOR TO TEMPORARILY RELOCATE EX. MAILBOX. MAILBOX SHOULD BE RESET IN ITS ORIGINAL LOCATION AT THE COMPLETION OF PROJECT.

6. CONTRACTOR TO REMOVE EXISTING SHRUBS IN CONFLICT WITH PROPOSED FIRE HYDRANT.

7. CONTRACTOR TO OPEN CUTOUT ROADWAY AND REPLACE ACCORDING TO CITY OF CONCORD AND NCDOT STANDARDS. SEE SHEET 12 FOR TYPICAL ROADWAYS CROSS SECTION.

8. CONTRACTOR TO REMOVE EXISTING TREES AND SHRUBS LOCATED WITHIN 20' FROM THE OPENING OF THE EXISTING CULVERTS.
NOTES

1. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES AND SHRUBS DETERMINED TO REMAIN.

2. STREAM AREAS IMPACTED DUE TO SITE DRAINAGE ACTIVITIES SHALL BE REGRADED TO ITS PRECONSTRUCTION CONTOURS AND REVEGETATED WITH APPROPRIATE NATIVE SPECIES, SUCH AS "BLUE FLAG IRIS", "SOFT RUSH", AND "LIZARD'S TAIL".
NOTES
1. CONTRACTOR TO REPLACE EXISTING ROADWAY ACCORDING TO CITY OF CONCORD AND NCDOT STANDARDS. SEE SHT. 12 FOR TYPICAL CROSS SECTION.
2. PRIVATE UTILITIES, EXCEPT PRIVATE WATER LINES, TO BE REMOVED OR BURIED BY OTHERS.
3. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES AND SHRUBS DETERMINED TO REMAIN.
4. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG HEADWALLS / WINGWALLS. PAINT COLOR SW 6258 FLAT SHEEN, OR EQUIVALENT. SEE DETAILS IN SHT. 11.
NOTE:
1. THESE PLANS AND DETAILS ARE MEANT TO SHOW THE GENERAL INTENT OF THE WINGWALL DESIGN. CONTRACTOR SHALL HAVE PRECAST REGULAR BLOCK WINGWALLS DESIGNED, DETAILED AND SPECIFIED BY MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE LICENSED IN THE STATE OF NORTH CAROLINA.
2. CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS TO THE CITY OF CONCORD FOR APPROVAL.
3. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG HEADWALLS / WINGWALLS. PAINT COLOR SW 6258 FLAT SHEEN, OR EQUIVALENT. SEE DETAIL IN SHT. 11.
NOTE:
1. THESE PLANS AND DETAILS ARE MEANT TO SHOW THE GENERAL INTENT OF THE MIDDLEWALL DESIGN. CONTRACTOR SHALL HAVE PRECAST/CONCRETE BLOCK MIDDLEWALLS DESIGNED, DETAILED AND SPECIFIED BY MANUFACTURER OR MANUFACTURER'S AUTHORIZED REPRESENTATIVE LICENSED IN THE STATE OF NORTH CAROLINA.
2. CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS TO THE CITY OF CONCORD FOR APPROVAL.
3. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG HEADWALLS / MIDDLEWALLS. PAINT COLOR SW 6258 FLAT SHEEN, OR EQUIVALENT. SEE DETAIL IN SHEET 11.
NOTE:
1. DURING SEWER CONSTRUCTION, CONTRACTOR TO MAINTAIN SEWER SERVICE CONNECTIONS AT ALL TIMES.
2. ALL EXISTING SERVICE CONNECTIONS TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION.
3. PROPOSED MANHOLE TO BE BUILT FOR TEMPORARY SITUATION. AFTER PERMANENT SEWER LINE HAS BEEN BUILT ON TOP OF CULVERT, CONTRACTOR TO ABANDON BOTTOM PART OF MANHOLE BY FILLING IN WITH #57 STONE, REMOVING INSIDE DROP, POURING NEW MANHOLE BOTTOM SLAB FOR NEW PERMANENT INVT OUT AND CREATING A NEW THROAT.
1. ALL PROPOSED WATER MAIN TO HAVE RESTRAINED JOINTS.
2. PROPOSED WATER LINE LENGTH IS APPROXIMATE. ACTUAL LENGTH AND LOCATION TO BE DETERMINED IN THE FIELD.
3. CONTRACTOR TO FIELD LOCATE EXISTING SERVICE CONNECTION TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL LOCATE AND MAKE ARRANGEMENTS WITH "CAROLINA WATER SERVICE OF NC" FOR WATERLINE REPLACEMENT.

NOTE: NATURAL GAS LINE CROSSING WATER LINE STA:0+01.00, OFF:6.30'R
NOTE: CONTRACTOR TO FIELD LOCATE EXISTING GAS LINE AND SANITARY SEWER MAIN. CONTRACTOR TO MAINTAIN MIN. OF AT LEAST 1 FOOT VERTICAL SEPARATION BETWEEN EXISTING UTILITIES AND PROPOSED WATER MAIN.

NOTE: WATER LINE CROSSING SAN. SEWER LINE WATERLINE ELEV: 624.00 SAN. SEWER INV ELEV: 615.36 STA:0+31.65
NOTE: CONTRACTOR TO FIELD LOCATE EXISTING GAS LINE AND SANITARY SEWER MAIN. CONTRACTOR TO MAINTAIN MIN. OF AT LEAST 1 FOOT VERTICAL SEPARATION BETWEEN EXISTING UTILITIES AND PROPOSED WATER MAIN.

Proposed 101'-6" RESTRAINED DI WATER MAIN. PROPOSED LINE IS TO BE INSTALLED ONLY AFTER CONSTRUCTION OF PROPOSED CULVERT IS COMPLETED. SIZE TO BE VERIFIED PRIOR TO INSTALLATION. CONTRACTOR TO MAKE ARRANGEMENTS WITH "CAROLINA WATER SERVICE OF NC" FOR WATERLINE REPLACEMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN EROSION AND SEDIMENT PERMIT FROM THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES FOR ANY NEW OFF-SITE BORROW AREA. ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM AN APPROVED EROSION CONTROL PLAN SITE, A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. DEBRIS FROM DEMOLITION ACTIVITIES SHOULD BE DISPOSED OF AT AN APPROVED FACILITY.
1. CONSTRUCT PROPOSED STEEL PIPE RAIL OF 2" DIAMETER SCHEDULE 40, PLAIN END, GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.

2. REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.

3. WHEN PAINTING IS REQUIRED IN THE PLANS, SMOOTH, CLEAN AND PREPARE GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 1080 AND THE ASTM D6386 STANDARD.

4. WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD.

5. VERTICAL POSTS TO BE EVENLY SPACED.

6. CONTRACTOR SHALL HAVE SAFETY RAIL CONNECTIONS DESIGNED, DETAILED AND SPECIFIED BY THE HEADWALLS/WINGWALLS MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE LICENSED IN THE STATE OF NORTH CAROLINA. DESIGN MUST MEET LOADING REQUIREMENTS IN OSHA STANDARD 1910.29(B)(3) AND 1910.29(B)(5). CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS TO THE CITY OF CONCORD FOR APPROVAL.
ROCK SILL DETAIL

NOT TO SCALE

1. No part of the sill shall be placed above the elevation of the stream bed.
2. Set the structure quickly with on both sides of the invert to provide a triangular gap.
3. The sill shall be constructed with flat-sided embankments of a size (quantity, width, and depth) as specified in the contract.
4. Filter fabric shall be used to filter the gap between the embankment and the stream bed. Use the proper filter material to perform the required function. Ensure the layout of the filter fabric is realistic and matches the actual conditions of the stream床.
5. Cord ties shall be used to tie the embankments to a solid sill, and grout to separate them to prevent any seepage.
6. Top of the sill shall extend above the stream bed and shall extend downstream from the stream bed.

SILL INSTALLATION:

1. The sill shall be installed at the surface and shall be flush with the stream bed.
2. The sill shall be constructed as follows:
   a. Dale-Excavate the stream bed to a depth equal to the total thickness of the sill.
   b. Install filter fabric.
   c. Install sill, ensuring that there is no slurry between the sill and the embankment.
   d. Install stream bed stabilization per plans.

TYPICAL CROSS SECTION

TYPICAL SECTIONS

UPSTREAM/DOWNSTREAM

RESIDENTIAL STREETS

NOT TO SCALE
TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL MAINTAIN THE TRAFFIC CONTROL AS DESCRIBED HEREIN UNLESS THE CONTRACTOR SUBMITS AN ALTERNATE TRAFFIC CONTROL PLAN TO THE CITY OF CONCORD. THE ENGINEER OR THEIR DESIGNEE MAY DIRECT THE CONTRACTOR TO MODIFY TRAFFIC CONTROL IF, IN THE ENGINEER'S OPINION, TRAFFIC IS NOT MOVING SAFELY OR EFFICIENTLY.

2. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS TO ALL BUSINESSES AND DWELLINGS, AND EASY ACCESS TO FIRE HYDRANTS.

3. POSITION WING BARRICADES ON SHOULDERS AND SLOPE THE STRIPES DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

LEGEND

ROAD CLOSED
CONES
DETOUR
DETOUR FOR NORTH & SOUTH BOUND

R11-2 +
TYPE III BARRICADE
30"x30"
ROAD CLOSED AHEAD

60"x30"
TYPE III WING BARRICADE

R11-4
30"x30"
ROAD CLOSED AHEAD

48"x30"
48"x30"
THIS PROJECT CONSISTS OF THE INSTALLATION OF A 7'Hx7'W DOUBLE BARREL CONCRETE BOX CULVERT AND APPROXIMATELY 143'± LINEAR FEET OF 8" GRAVITY SEWER, 147± OF 6" WATERLINE AND 134± OF 4" WATERLINE UNDER CHELWOOD DR. ALONG WITH APPURTENANCES AND OTHER ASSOCIATED PROJECT WORK, FOR THE PURPOSE OF PROVIDING STORM AND SANITARY SEWER UPGRADES.

THE PROJECTED AMOUNT OF GROUND DISTURBANCE IS 0.84± ACRES.

WORK SHALL PROCEED IN SUCH A MANNER SO AS TO LIMIT THE AMOUNT OF GROUND DISTURBANCE BY HAVING ONLY ONE SECTION OF THE DITCH OPEN AT A TIME THEREBY REDUCING THE POTENTIAL FOR LARGE QUANTITIES OF SEDIMENT TO BE TRANSPORTED OFF SITE.

SEEDING OF DENUDED AREAS SHALL BE DONE AS SOON AS POSSIBLE, BUT IN NO CASE LONGER THAN THE SOIL STABILIZATION TIMES GIVING IN THE PLANS. REMOVAL OF ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL ONLY BE DONE AFTER APPROVAL HAS BEEN COORDINATED WITH THE DEPARTMENT OF ENVIRONMENTAL QUALITY, THE CITY OF CONCORD, AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.


COMPLETION OF THIS PROJECT IS ANTICIPATED TO TAKE 120 DAYS AFTER NOTICE BY THE CITY OF CONCORD TO PROCEED. FINAL COMPLETION AND ACCEPTANCE OF THE WORK IS ANTICIPATED TO BE SUMMER 2019.

NOTE:
CONDITIONS OF APPROVAL: NO WORK SHOWN IN THIS PLAN SHALL COMMENCE UNTIL THE CITY'S NOTICE TO PROCEED HAS BEEN ISSUED AND THE NCDEQ DWR 401 WATER QUALITY CERTIFICATION AND USACE SECTION 404 PERMIT APPROVALS ARE OBTAINED; AND ANY CONDITIONS IMPOSED BY NCDEQ DWR AND USACE SHALL BE CONSIDERED INCORPORATED HEREIN.
NOTES:
1. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES DETERMINED TO REMAIN.
2. ALL EXISTING SERVICE CONNECTIONS TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL LOCATE AND MAKE PROVISIONS IN ACCORDANCE WITH THE CITY OF CONCORD FOR PROTECTION.
3. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS TO ALL BUSINESSES AND DWELLINGS, AND EASY ACCESS TO FIRE HYDRANTS.
NOTES

1. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES AND SHRUBS DETERMINED TO REMAIN.

2. STREAM AREAS IMPACTED DUE TO SITE DEWATERING ACTIVITIES SHALL BE GRADED TO ITS PRECONSTRUCTION CONTOURS AND REVEGETATED WITH APPROPRIATE NATIVE SPECIES, SUCH AS "BLUE FLAG IRIS," "SOFT RUSH," AND "LIZARD'S TAIL."
NOTES
1. CONTRACTOR TO REPLACE EXISTING ROADWAY ACCORDING TO CITY OF CONCORD AND NCDOT STANDARDS. SEE SHT. 11 FOR TYPICAL CROSS SECTION.
2. PRIVATE UTILITIES OTHER THAN PRIVATE WATER LINES TO BE RELOCATED BY OTHERS.
3. REMOVAL OF TREES AND SHRUBS ARE TO BE MINIMIZED AS MUCH AS POSSIBLE. CONTRACTOR TO AVOID AND MINIMIZE DAMAGE TO THOSE TREES DETERMINED TO REMAIN.
4. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG HEADWALLS / WINGWALLS. PAINT COLOR SW 6258 FLAT SHEEN, OR EQUIVALENT. SEE DETAIL IN SHT. 12.
NOTE:

1. THESE PLANS AND DETAILS ARE MEANT TO SHOW THE General INTENT OF THE WINGWALL DESIGN. CONTRACTOR SHALL HAVE PRECAST CONCRETE BLOCK GRAVITY WINGWALLS DESIGNED, DETAI LED AND SPECIFIED BY MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE LICENSED IN THE STATE OF NORTH CAROLINA.

2. CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS TO THE CITY OF CONCORD FOR APPROVAL.

3. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG HEADWALLS/WINGWALLS. PAINT COLOR SW 6258 FLAT SHEEN, OR EQUIVALENT. SEE DETAIL IN SHEET 10.
NOTE:

1. THESE PLANS AND DETAILS ARE MEANT TO SHOW THE GENERAL
   INTENT OF THE WINGWALL DESIGN. CONTRACTOR SHALL HAVE
   PRECAST CONCRETE BLOCK GRAVITY WINGWALLS DESIGNED,
   DETAILED AND SPECIFIED BY MANUFACTURER OR
   MANUFACTURER'S REPRESENTATIVE LICENSED IN THE STATE OF
   NORTH CAROLINA.

2. CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS
   TO THE CITY OF CONCORD FOR APPROVAL.

3. CONTRACTOR TO INSTALL PEDESTRIAN SAFETY RAIL ALONG
   HEADWALLS / WINGWALLS. PAINT COLOR SW 6258 FLAT SHEEN,
   OR EQUIVALENT. SEE DETAIL IN SHEET 12.
SEWER NOTES:
1. DURING SEWER CONSTRUCTION, CONTRACTOR TO MAINTAIN SEWER SERVICE CONNECTIONS AT ALL TIMES.
2. ALL EXISTING SERVICE CONNECTIONS TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION.
3. PROPOSED MANHOLE TO BE BUILT FOR TEMPORARY SITUATION. AFTER PERMANENT SEWER LINE HAS BEEN BUILT ON TOP OF CULVERT, CONTRACTOR TO ABANDON TEMPORARY SECTION BY FILLING BOTTOM WITH #57 STONE AND CAST NEW CONCRETE THROUGH PROPOSED INVERT ELEVATION.

WATER NOTES:
4. ALL PROPOSED WATER MAIN TO HAVE RESTRAINED JOINTS.
5. PROPOSED WATER LINE LENGTH IS APPROXIMATE, ACTUAL LENGTH AND LOCATION TO BE DETERMINED IN THE FIELD.
6. ALL EXISTING SERVICE CONNECTION TO REMAIN IN SERVICE AND TO BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL LOCATE AND MAKE PROVISIONS IN ACCORDANCE WITH THE CITY OF CONCORD STANDARDS FOR PROTECTION.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN EROSION AND SEDIMENTATION PERMIT FROM THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES FOR ANY NEW OFF-SITE BORROW AREA. ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM AN APPROVED EROSION CONTROL PLAN SITE, A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. DEBRIS FROM DEMOLITION ACTIVITIES SHOULD BE DISPOSED OF AT AN APPROVED FACILITY.
NOTES:
1. CONSTRUCT PROPOSED STEEL PIPE RAIL OF 2" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.
2. REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.
3. WHEN PAINTING IS REQUIRED IN THE PLANS, SMOOTH, CLEAN AND PREPARE GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 1080 AND THE ASTM D6386 STANDARD.
4. WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD.
5. VERTICAL POSTS TO BE EVENLY SPACED.
6. CONTRACTOR SHALL HAVE SAFETY RAIL CONNECTIONS DESIGNED, DETAILED AND SPECIFIED BY THE HEADWALLS/WINGWALLS MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE LICENSED IN THE STATE OF NORTH CAROLINA. DESIGN MUST MEET LOADING REQUIREMENTS IN OSHA STANDARD 1910.29(B)(3) AND 1910.29(B)(5). CONTRACTOR SHALL SUBMIT FINAL DESIGN AND CALCULATIONS TO THE CITY OF CONCORD FOR APPROVAL.
NOTES:

1. THE CONTRACTOR SHALL MAINTAIN THE TRAFFIC CONTROL DESCRIBED HEREIN UNLESS THE CONTRACTOR SUBMITS AN ALTERNATIVE TRAFFIC CONTROL PLAN TO THE CITY OF CONCORD. THE ENGINEER OR THEIR DESIGNEE MAY DIRECT THE CONTRACTOR TO MODIFY TRAFFIC CONTROL IF, IN THE ENGINEER'S OPINION, TRAFFIC IS NOT MOVING SAFELY OR EFFICIENTLY.

2. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS TO ALL BUSINESS AND DWELLINGS, AND EASY ACCESS TO FIRE HYDRANTS.

3. POSITION WING BARICADES ON THE SHOULDERS AND SLOPE STRIPES DOWNWARDS IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.
### Surface Water Impacts

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Station (From/To)</th>
<th>Structure Size/Type</th>
<th>Permanent STREAM Width (ft)</th>
<th>Temporary STREAM Width (ac)</th>
<th>Tangent STREAM Width (ac)</th>
<th>Existing STREAM Width (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>0+66 / 0+90</td>
<td>Impervious Dike/Dewatering</td>
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<td>0.020</td>
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<tr>
<td>S2</td>
<td>0+90 / 1+16</td>
<td>Stream grading, rock sills and riprap</td>
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<tr>
<td>S3</td>
<td>1+16 / 1+78</td>
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<tr>
<td>S4</td>
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<tr>
<td>S5</td>
<td>2+02 / 2+26</td>
<td>Dike/ Dewatering Stream Scouring</td>
<td>24</td>
<td>0.017</td>
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</table>
Maintenance. (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP also authorizes the removal of previously authorized structures or fills. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project. This NWP also authorizes the removal of accumulated sediment and debris within, and in the immediate vicinity of, the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.). The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization.

(c) This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After conducting the maintenance activity, temporary fills must be
removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

**Notification:** For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Authorities: Section 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act (Sections 10 and 404))

**Note:** This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act section 404(f) exemption for maintenance.
NATIONWIDE PERMIT GENERAL CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation.
   (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
   (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. **Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.** (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status,
unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. **Tribal Rights.** No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. **Endangered Species.** (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that
might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at [http://www.fws.gov/](http://www.fws.gov/) or [http://www.fws.gov/ipac](http://www.fws.gov/ipac) and [http://www.nmfs.noaa.gov/pr/species/esa/](http://www.nmfs.noaa.gov/pr/species/esa/) respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory
birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. **Historic Properties.** (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.
(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

   (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

   (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.
23. **Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

   (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

   (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

   (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

   (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

   (e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protection a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

   (f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

   (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-
lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill
material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to no more than minimal level.

24. **Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. **Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. **Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. **Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. **Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. **Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: “When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To
validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. **Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:
   
   (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
   
   (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
   
   (c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. **Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. **Pre-Construction Notification.** (a) **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the
prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer’s receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee’s right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity’s purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters.
Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the “study river” (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and
supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity’s compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity’s adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity’s compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies’ concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

**DISTRICT ENGINEER’S DECISION**

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal
individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and
include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant’s submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

**FURTHER INFORMATION**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).
DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National
Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the acres or linear feet of stream bed that are filled or excavated as a result of the regulated activity. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the
primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

**Practicable**: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

**Pre-construction notification**: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

**Preservation**: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

**Protected tribal resources**: Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

**Re-establishment**: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

**Rehabilitation**: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

**Restoration**: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Riffle and pool complex**: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

**Riparian areas**: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)
Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water
surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.
FINAL 2017 REGIONAL CONDITIONS

NOTICE ABOUT WEB LINKS IN THIS DOCUMENT:
The web links (both internal to our Wilmington District and any external links to collaborating agencies) in this document are valid at the time of publication. However, the Wilmington District Regulatory Program web page addresses, as with other agency web sites, may change over the timeframe of the five-year Nationwide Permit renewal cycle, in response to policy mandates or technology advances. While we will make every effort to check on the integrity of our web links and provide re-direct pages whenever possible, we ask that you report any broken links to us so we can keep the page information current and usable. We apologize in advanced for any broken links that you may encounter, and we ask that you navigate from the Regulatory home page (Regulatory Permit Program Wetlands and Streams) of the Wilmington District Corps of Engineers, to the “Permits” section of our web site to find links for pages that cannot be found by clicking directly on the listed web link in this document.

Final 2017 Regional Conditions for Nationwide Permits (NWP) in the Wilmington District

1.0 Excluded Waters

The Corps has identified waters that will be excluded from the use of all NWP’s during certain timeframes. These waters are:

1.1 Anadromous Fish Spawning Areas

Waters of the United States identified by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are excluded during the period between February 15 and June 30, without prior written approval from the Corps and either NCDMF or NCWRC.

1.2 Trout Waters Moratorium

Waters of the United States in the designated trout watersheds of North Carolina are excluded during the period between October 15 and April 15 without prior written approval from the NCWRC, or from the Eastern Band of Cherokee Indians (EBCI) Fisheries and Wildlife Management (FWM) office if the project is located on EBCI trust land. (See Section 2.7 for information on the designated trout watersheds).

1.3 Sturgeon Spawning Areas as Designated by the National Marine Fisheries Service (NMFS)

Waters of the United States designated as sturgeon spawning areas are excluded during the period between February 1 and June 30, without prior written approval from the NMFS.
2.0 Waters Requiring Additional Notification

The Corps has identified waters that will be subject to additional notification requirements for activities authorized by all NWPs. These waters are:

2.1 Western NC Counties that Drain to Designated Critical Habitat

For proposed activities within waters of the United States that require a Pre-Construction Notification (PCN) and are located in the sixteen counties listed below, permittees must provide a copy of the PCN to the U.S. Fish and Wildlife Service (USFWS), 160 Zillicoa Street, Asheville, North Carolina 28801. This PCN must be sent concurrently to the U.S. Fish and Wildlife Service and the Corps Asheville Regulatory Field Office. Please see General Condition 18 for specific notification requirements related to the Endangered Species Act and the below website for information on the location of designated critical habitat.

Counties with tributaries that drain to designated critical habitat that require notification to the Asheville U.S. Fish and Wildlife Service: Avery, Cherokee, Forsyth, Graham, Haywood, Henderson, Jackson, Macon, Mecklenburg, Mitchell, Stokes, Surry, Swain, Transylvania, Union and Yancey.

Website and office addresses for Endangered Species Act Information:

The Wilmington District has developed the following website for permittees which provides guidelines on how to review linked websites and maps in order to fulfill NWP General Condition 18 requirements:

http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/AgencyCoordination/ESA.aspx

Permittees who do not have internet access may contact the appropriate U.S. Fish and Wildlife Service offices listed below or Corps at (910) 251-4633:

Asheville U.S. Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsythe and Stokes Counties.

U.S. Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

Raleigh U.S. Fish and Wildlife Service Office counties: all counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
2.2 Special Designation Waters

Prior to the use of any NWP, except NWP 3, that involves a discharge of dredged or fill material in any of the following identified waters and/or adjacent wetlands in North Carolina, permittees shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32). The North Carolina waters and wetlands that require additional notification requirements are:

“Outstanding Resource Waters” (ORW) or “High Quality Waters” (HQW) as designated by the North Carolina Environmental Management Commission; “Primary Nursery Areas” (PNA), including inland PNA, as designated by the North Carolina Marine Fisheries Commission and the NCWRC; or wetlands adjacent to these waters. Definitions of ORW, HQW and PNA waters can be found in the North Carolina State Administrative Code, Title 15A, Subchapters 2B and 10C (15A NCAC 02B, 15A NCAC 10C) and at the following World Wide Web page: http://reports.oah.state.nc.us/ncac.asp?folderName=\Title%2015A%20-%20Environmental%20Quality&lookUpError=15A%20NCAC%20000%20. Surface water classifications for waters in North Carolina can be viewed at the North Carolina Division of Water Resources website or at the following World Wide Web Page: https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/classifications

Permittees who do not have internet access may contact the Corps at (910) 251-4633.

2.3 Coastal Area Management Act (CAMA) Areas of Environmental Concern

Non-federal permittees for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA) must also obtain the required CAMA permit. Development activities for non-federal projects may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – 69 Darlington Avenue, Wilmington, NC 28403, (910) 251-4802 or Washington Field Office – 2407 West 5th Street, Washington, NC 27889, (910) 251-4610).

2.4 Barrier Islands

Prior to the use of any NWP on a barrier island of North Carolina, permittees must submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32).

2.5 Mountain or Piedmont Bogs

Prior to the use of any NWP in a Bog, as classified by the North Carolina Wetland Assessment Methodology (NCWAM), permittees shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32). The latest version of NCWAM can be
viewed on the Corps RIBITS (Regulatory In-lieu Fee and Bank Information Tracking System) website or at the following World Wide Web Page:

2.6 Animal Waste Facilities

Prior to use of any NWP for construction of animal waste facilities in waters of the United States, including wetlands, permittees shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32).

2.7 Trout Waters

Prior to any discharge of dredge or fill material into streams, waterbodies or wetlands within the 294 designated trout watersheds of North Carolina, the permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity, unless other thresholds are established in the Regional Conditions in Section 4 (Additional Regional Conditions for Specific Nationwide Permits). The permittee shall also provide a copy of the notification to the appropriate NCWRC office, or to the EBCI FWM Office (if the project is located on EBCI trust land), to facilitate the determination of any potential impacts to designated Trout Waters.

Notification to the Corps will include a statement with the name of the NCWRC or EBCI FWM biologist contacted, the date of the notification, the location of work, a delineation of wetlands and waters, a discussion of alternatives to working in the mountain trout waters, why alternatives were not selected, and, if applicable, a plan to provide compensatory mitigation for all unavoidable adverse impacts to mountain trout waters.

NCWRC and NC Trout Watersheds:

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<tr>
<th>NCWRC Contact**</th>
<th>Counties that are entirely within Trout Watersheds*</th>
<th>Counties that are partially within Trout Watersheds*</th>
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<tr>
<td>Mountain Coordinator</td>
<td>Allegany Jackson</td>
<td>Burke McDowell</td>
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<td>Balsam Depot</td>
<td>Ashe Macon</td>
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<td>20830 Great Smoky</td>
<td>Avery Swain</td>
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<td>Graham Transylvania</td>
<td>Cherokee Rutherford</td>
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<td>Waynesville, NC 28786</td>
<td>Haywood Watauga</td>
<td>Clay Surry</td>
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<td>Telephone: (828) 558-6011</td>
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<td>Henderson Wilkes</td>
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<td>Madison Yancey</td>
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<td>For NCDOT Projects:</td>
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<td>NCDOT Coordinator</td>
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<td>Telephone: (704) 982-9181</td>
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*NOTE: To determine notification requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps for each County at the following World Wide Web page: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout/.

**If a project is located on EBCI trust land, submit the PCN in accordance with Section 3.14. Contact the Corps Asheville Regulatory Field Office at (828) 271-7980 with questions.

2.8 Western NC Waters and Corridors

The permittee shall submit a PCN (see General Condition 32) to the District Engineer prior to commencing the activity in waters of the United States if the activity will occur within any of the following identified waters in western North Carolina, within 0.5 mile on either side of these waters, or within 0.75 mile of the Little Tennessee River, as measured from the top of the bank of the respective water (i.e., river, stream, or creek):

- Brasstown Creek
- Burningtown Creek
- Cane River
- Caney Fork
- Cartoogehaye Creek
- Chattooga River
- Cheoah River
- Cowee Creek
- Cullasaja River
- Deep Creek
- Ellijay Creek
- French Broad River
- Garden Creek
- Hiwassee River
- Hominy Creek
- Iotla Creek
- Little Tennessee River (within the river or within 0.75 mile on either side of this river)
- Nantahala River
- Nolichucky River
- North Fork French Broad River
- North Toe River
- Nottley River
- Oconaluftee River (portion not located on trust/EBCI land)
- Peachtree Creek
- Shooting Creek
- Snowbird Creek
- South Toe River
- Stecoah Creek
- Swannanoa River
- Sweetwater Creek
Tuckasegee River (also spelled Tuckaseegee or Tuckaseigee)
Valley River
Watauga Creek
Watauga River
Wayah Creek
West Fork French Broad River

To determine notification requirements, contact the Corps Asheville Regulatory Field Office at (828) 271-7980 or view maps for all corridors at the following World Wide Web page: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Designated-Special-Waters.aspx

3.0 List of Corps Regional Conditions for All Nationwide Permits

The following conditions apply to all Nationwide Permits in the Wilmington District:

3.1 Limitation of Loss of Stream Bed

NWPs may not be used for activities that may result in the loss or degradation of more than 300 total linear feet of stream bed, unless the District Engineer has waived the 300 linear foot limit for ephemeral and intermittent streams on a case-by-case basis and has determined that the proposed activity will result in minimal individual and cumulative adverse impacts to the aquatic environment. Waivers for the loss of ephemeral and intermittent streams must be in writing and documented by appropriate/accepted stream quality assessments*. This waiver only applies to the 300 linear feet threshold for NWPs.

This Regional Condition does not apply to NWP 23 (Approved Categorical Exclusions).

*NOTE: Permittees should utilize the most current methodology prescribed by Wilmington District to assess stream function and quality. Information can be found at: https://ribits.usace.army.mil/ribits_apex/f?p=107:27:0::NO:::

3.2 Mitigation for Loss of Stream Bed

For any NWP that results in a loss of more than 150 linear feet of stream, the permittee shall provide a mitigation proposal to compensate for more than minimal individual and cumulative adverse impacts to the aquatic environment. For stream losses of 150 linear feet or less that require a PCN, the District Engineer may determine, on a case-by-case basis, that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

3.3 Pre-construction Notification for Loss of Streambed Exceeding 150 Feet

Prior to use of any NWP for any activity which impacts more than 150 total linear feet of perennial stream, intermittent or ephemeral stream, the permittee shall submit a PCN to the District Engineer prior to commencing the activity (see General Condition 32). This applies to
NWPs that do not have specific notification requirements. If a NWP has specific notification requirements, the requirements of the NWP should be followed.

### 3.4 Restriction on Use of Live Concrete

For all NWPs which allow the use of concrete as a building material, live or fresh concrete, including bags of uncured concrete, may not come into contact with the water in or entering into waters of the United States. Water inside coffer dams or casings that has been in contact with wet concrete shall only be returned to waters of the United States after the concrete is set and cured and when it no longer poses a threat to aquatic organisms.

### 3.5 Requirements for Using Riprap for Bank Stabilization

For all NWPs that allow for the use of riprap material for bank stabilization, the following measures shall be applied:

3.5.1. Where bank stabilization is conducted as part of an activity, natural design, bioengineering and/or geoengineering methods that incorporate natural durable materials, native seed mixes, and native plants and shrubs are to be utilized to the maximum extent practicable.

3.5.2. Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters. The placement of filter fabric is not required if the riprap will be pushed or “keyed” into the bank of the waterbody. A waiver from the specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional Condition would result in greater adverse impacts to the aquatic environment.

3.5.3. The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

3.5.4. The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities that would not have an adverse environmental effect.

3.5.5. It shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

3.5.6. The riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

### 3.6 Requirements for Culvert Placement

3.6.1 For all NWPs that involve the construction/installation of culverts, measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be modified by altering the width or depth of the stream profile in connection with the construction activity. The width, height, and gradient of a proposed culvert should be
sufficient to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow is the seasonal sustained high flow that typically occurs in the spring. Spring flows should be determined from gage data, if available. In the absence of such data, bank-full flow can be used as a comparable indicator.

In Public Trust Areas of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by the Coastal Area Management Act (CAMA): All pipes/culverts must be sufficiently sized to allow for the burial of the bottom of the culvert at least one foot below normal bed elevation.

In all other areas: Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or less shall be buried to maintain aquatic passage and to maintain passage during drought or low flow conditions, and every effort shall be made to maintain the existing channel slope.

Culverts must be designed and constructed in a manner that minimizes destabilization and head cutting. Destabilizing the channel and head cutting upstream should be considered and appropriate actions incorporated in the design and placement of the culvert.

A waiver from the depth specifications in this condition may be requested, in writing, by the permittee and issued by the Corp; this request must be specific as to the reasons(s) for the request. The waiver will be issued if it can be demonstrated that the proposed design would result in less impacts to the aquatic environment.

All counties: Culverts placed within riparian and/or riverine wetlands must be installed in a manner that does not restrict the flow and circulation patterns of waters of the United States.
Culverts placed across wetland fills purely for the purposes of equalizing surface water do not have to be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

3.6.2 Bank-full flows (or less) shall be accommodated through maintenance of the existing bank-full channel cross sectional area. Additional culverts or culvert barrels at such crossings shall be allowed only to receive bank-full flows.

3.6.3 Where adjacent floodplain is available, flows exceeding bank-full should be accommodated by installing culverts at the floodplain elevation. Additional culverts or culvert barrels at such crossings should not be buried, or if buried, must have sills at the inlets to ensure that they only receive flows exceeding bank-full.

3.6.4 Excavation of existing stream channels shall be limited to the minimum necessary to construct or install the proposed culvert. The final width of the impacted stream at the culvert inlet and outlet should be no greater than the original stream width. A waiver from this condition may be requested in writing; this request must be specific as to the reason(s) for the request. The waiver will be issued if the proposed design would result in less impacts to the aquatic environment and/or if it can be demonstrated that it is not practicable to restore the final width of the impacted stream at the culvert inlet and outlet to the width of the original stream channel.

3.6.5 The width of the culvert shall be comparable to the width of the stream channel. If the width of the culvert is wider than the stream channel, the culvert shall include baffles, benches and/or sills to maintain the width of the stream channel. A waiver from this condition may be requested in writing; this request must be specific as to the reason(s) for the request. The waiver will be issued if it can be demonstrated that it is not practicable or necessary to include baffles, benches or sills and the design would result in less impacts to the aquatic environment.

3.7 Notification to NCDEQ Shellfish Sanitation Section

Permittees shall notify the NCDEQ Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination from the disposal area and cause a temporary shellfish closure to be made. Such notification shall also be provided to the appropriate Corps Regulatory Field Office. Any disposal of sand to the ocean beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand
should be used and no dredged sand from closed shell fishing areas may be used. If beach disposal were to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swimming advisory shall be posted, and a press release shall be issued by the permittee.

3.8 Submerged Aquatic Vegetation

Impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP, except NWP 48, unless EFH Consultation has been completed pursuant to the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act). Permittees shall submit a PCN (See NWP General Condition 32) to the District Engineer prior to commencing the activity if the project would affect SAV. The permittee may not begin work until notified by the Corps that the requirements of the Magnuson-Stevens Act have been satisfied and that the activity is authorized.

3.9 Sedimentation and Erosion Control Structures and Measures

All PCNs will identify and describe sedimentation and erosion control structures and measures proposed for placement in waters of the United States. The structures and measures should be depicted on maps, surveys or drawings showing location and impacts to jurisdictional wetlands and streams.

3.10 Restoration of Temporary Impacts to Stream Beds

Upon completion of work that involves temporary stream impacts, streambeds are to be restored to pre-project elevations and widths using natural streambed material such that the impacted stream reach mimics the adjacent upstream and downstream reach. The impacted area shall be backfilled with natural streambed material to a depth of at least 12 inches or to the bottom depth of the impacted area if shallower than 12 inches. An engineered in-stream structure or material can be used to provide protection of a buried structure if it provides benefits to the aquatic environment and can be accomplished by a natural streambed design. A permittee may request a waiver of this condition if it is determined a buried structure needs significant physical protection beyond those provided in this condition. This condition does not apply to NWP 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities.

3.11 Restoration of Temporary Impacts to Stream Banks

Upon completion of work involving temporary stream bank impacts, stream banks are to be restored to pre-project grade and contours or beneficial grade and contours if the original bank slope is steep and unstable. Natural durable materials, native seed mixes, and native plants and shrubs are to be utilized in the restoration. Natural designs which use bioengineered and/or geo-engineered methods are to be applied. An engineered structure or material can be used to provide protection of a buried structure if it provides benefits to the stream bank environment, provided it is not in excess of the minimum amount needed for protection and does not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark. A permittee may request a waiver of this condition if it is determined a buried structure
needs significant physical protection beyond those provided in this condition. This condition
does not apply to NWP 27 – Aquatic Habitat Restoration, Enhancement, and Establishment
Activities.

3.12 Federal Navigation Channel Setbacks and Corps Easements

3.12.1 Authorized structures and fills located in or adjacent to Federally authorized waterways
will be constructed in accordance with the latest setback criteria established by the Wilmington
District Engineer. You may review the setback policy at
http://www.saw.usace.army.mil/Missions/Navigation/Setbacks.aspx. This general permit does
not authorize the construction of hardened or permanently fixed structures within the Federally
Authorized Channel Setback, unless the activity is approved by the Corps. The permittee shall
submit a PCN (see General Condition 32) to the District Engineer prior to the construction of any
structures or fills within the Federally Authorized Channel Setback.

3.12.2 The permittee shall obtain a Consent to Cross Government Easement from the
Wilmington District’s Land Use Coordinator prior to any crossing of the Corps easement and/or
prior to commencing construction of any structures, authorized dredging or other work within the
right-of-way of, or in proximity to, a federally designated disposal area. The Land Use
Coordinator may be contacted at: CESAW-OP-N, 69 Darlington Avenue, Wilmington, North
Carolina 28403-1343, email: SAWWeb-NAV@usace.army.mil

3.13 Northern Long-eared Bat – Endangered Species Act Compliance

The Wilmington District, U.S. Army Corps of Engineers has consulted with the United States
Fish and Wildlife Service (USFWS) in regards to the threatened Northern long-eared bat
(NLEB) (Myotis septentrionalis) and Standard Local Operating Procedures for Endangered
Species (SLOPES) have been approved by the Corps and the USFWS. This condition concerns
effects to the NLEB only and does not address effects to other federally listed species and/or
federally designated critical habitat.

A. Procedures when the Corps is the lead federal* agency for a project:

The permittee must comply with (1) and (2) below when:

• the project is located in the western 41 counties of North Carolina, to include non-
federal aid North Carolina Department of Transportation (NCDOT) projects, OR;

• the project is located in the 59 eastern counties of North Carolina, and is a non-
NCDOT project.

*Generally, if a project is located on private property or on non-federal land, and the project
is not being funded by a federal entity, the Corps will be the lead federal agency due to the
requirement to obtain Department of the Army authorization to impact waters of the United
States. If the project is located on federal land, contact the Corps to determine the lead
federal agency.
(1) A permittee using a NWP must check to see if their project is located in the range of
the NLEB by using the following website:
http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf. If the
project is within the range of the NLEB, or if the project includes percussive activities
(e.g., blasting, pile driving, etc.), the permittee is then required to check the appropriate
website in the paragraph below to discover if their project:

• is located in a 12-digit Hydrologic Unit Code area (“red HUC” - shown as red areas
  on the map), AND/OR;

• involves percussive activities within 0.25 mile of a red HUC.

Red HUC maps - for the western 41 counties in NC (covered by the Asheville Ecological
Services Field Office), check the project location against the electronic maps found at:
http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html. For the eastern
59 counties in NC (covered by the Raleigh Ecological Services Field Office), check the
project location against the electronic maps found at:

(2) A permittee must submit a PCN to the District Engineer, and receive written
authorization from the District Engineer, prior to commencing the activity, if the activity
will involve any of the following:

• tree clearing/removal, construction/installation of wind turbines in a red HUC,
  AND/OR;

• bridge removal or maintenance, unless the bridge has been inspected and there is
  no evidence of bat use, (applies anywhere in the range of the NLEB), AND/OR:

• percussive activities in a red HUC, or within 0.25 mile of a red HUC.

The permittee may proceed with the activity without submitting a PCN to either the Corps
or the USFWS, provided the activity complies with all applicable NWP terms and general
and regional conditions, if the permittee’s review under A.(1) and A.(2) above shows that
the project is:

• located outside of a red HUC (and there are no percussive activities), and the
  activity will NOT include bridge removal or maintenance, unless the bridge has
  been inspected and there is no evidence of bat use, OR;

• located outside of a red HUC and there are percussive activities, but the percussive
  activities will not occur within 0.25-mile of a red HUC boundary, and the activity
  will NOT include bridge removal or maintenance, unless the bridge has been
  inspected and there is no evidence of bat use, OR;
• located in a red HUC, but the activity will NOT include: tree clearing/removal; construction/installation of wind turbines; bridge removal or maintenance, unless the bridge has been inspected and there is no evidence of bat use, and/or; any percussive activities.

B. Procedures when the USACE is not the lead federal agency:

For projects where another federal agency is the lead federal agency - if that other federal agency has completed project-specific ESA Section 7(a)(2) consultation for the NLEB, and has (1) determined that the project would not cause prohibited incidental take of the NLEB, and (2) completed coordination/consultation that is required by the USFWS (per the directions on the respective USFWS office’s website), that project may proceed without notification to either the USACE or the USFWS, provided all General and Regional Permit Conditions are met.

The NLEB SLOPES can be viewed on the USACE website at the following World Wide Web Page: http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/. Permittees who do not have internet access may contact the USACE at (910) 251-4633.

3.14 Work on Eastern Band of Cherokee Indians Land

All PCNs submitted for activities in waters of the United States on Eastern Band of Cherokee Indians (EBCI) trust land (i.e., Qualla Boundary and non-contiguous tracts of trust land), must comply with the requirements of the latest MOU between the Wilmington District and the Eastern Band of Cherokee Indians.

4.0 Additional Regional Conditions for Specific Nationwide Permits

4.1 NWP #3 – Maintenance

4.1.1 In designated trout watersheds, a PCN is not required for impacts to a maximum of 75 linear feet (150 linear feet for temporary dewatering) of streams and waterbodies when conducting maintenance activities. Minor deviations in an existing structure’s configuration, temporary structures and temporary fills are authorized as part of the maintenance activity. In designated trout watersheds, the permittee shall submit a PCN (see Regional Condition 2.7 and General Condition 32) to the District Engineer prior to commencing the activity if; 1) impacts (other than temporary dewatering to work in dry conditions) to streams or waterbodies exceed 75 linear feet; 2) temporary impacts to streams or waterbodies associated with dewatering to work in dry conditions exceeds 150 linear feet; 3) the project will involve impacts to wetlands; 4) the project involves the replacement of a bridge or spanning structure with a culvert or non-spanning structure in waters of the United States; or 5) the activity will be constructed during the trout waters moratorium (October 15 through April 15).

4.1.2 The permittee shall submit a PCN (see NWP General Condition 32) to the District Engineer prior to commencing the activity if the activity involves repair, rehabilitation or replacement of impounding structures or parts of impounding structures or fills.
4.1.3 The permittee shall submit a PCN to the District Engineer prior to commencing the activity if the activity will involve the discharge of dredged or fill material into more than 1/10-acre of wetlands or 150 linear feet of stream channel for the construction of temporary access fills and/or temporary road crossings. The PCN must include a restoration plan that thoroughly describes how all temporary fills will be removed, how pre-project conditions will be restored, and include a timetable for all restoration activities.