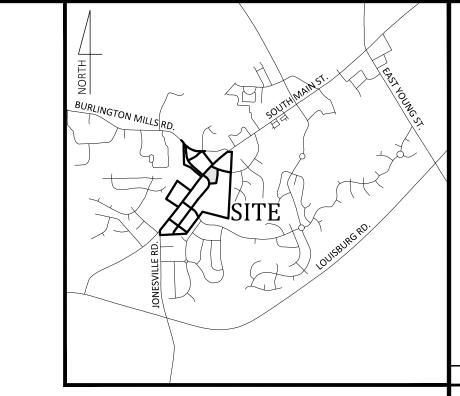
MASS GRADING / EROSION CONTROL WALLBROOK - Lot 7

S. Main St. / US-401 Business & Wall Creek Drive, Town of Rolesville, Wake County, North Carolina △ Project No.: CID 24-02



Vicinity Map

CROSLANDSOUTHEAST



WALLBI SS GRADING Town of Rolesy

GROUP, PLLC

Project Manager:

Rolesville

Engineer

Greenville, NC

Ark Consulting Group, PLLC

Contact: Bryan C. Fagundus, PE

925-A Conference Drive

CID-24-02 / Construction Infrastructure Drawings / Wallbrook Lot 7 APPROVED Date: April 18, 2025

Town of Rolesville Planning Department

Meredith Truber

Project Number: D-1471 Orawing Number: C_{0.1}

Drawn By:

24136

Checked By:

April 1, 2024



Sheet Index

C0.2 Existing Conditions & Demolition Plan

C1.0 Erosion Control Notes & Legend

C1.1 Erosion Control Phase

C1.2 Erosion Control Phase 2 & Mass Grading Plan **C1.3** Erosion Control Phase 3 (Close-Out)

Survey - Johnson, Mirmiran & Thompson (3 Sheets)

REF Tree Preservation Plan - PR-21-04 REVISED (1 Sheet)

Site Data 🕸

PIN NUMBERS: 1758-57-7481 REAL ESTATE ID: 0509437 CURRENT ZONING: GC-CZ 2.74 ACRES ACREAGE IN PARCEL: 0.00 ACRES ACREAGE IN PUBLIC R/W: TOTAL ACREAGE DISTURBED: 2.30 ACRES WATERSHED: Lower Neuse RIVER BASIN: **CURRENT USE:** VACANT / WOODED **EXISTING IMPERVIOUS**

PROPOSED IMPERVIOUS: PROPOSED USE(S): NON-RESIDENTIAL/COMMERCIAL/RETAIL

LOT 7 LOTS IN DEVELOPMENT: DB 018103 PG 01563 REFERENCES: BM2023 PG 01602

Owner/Developer

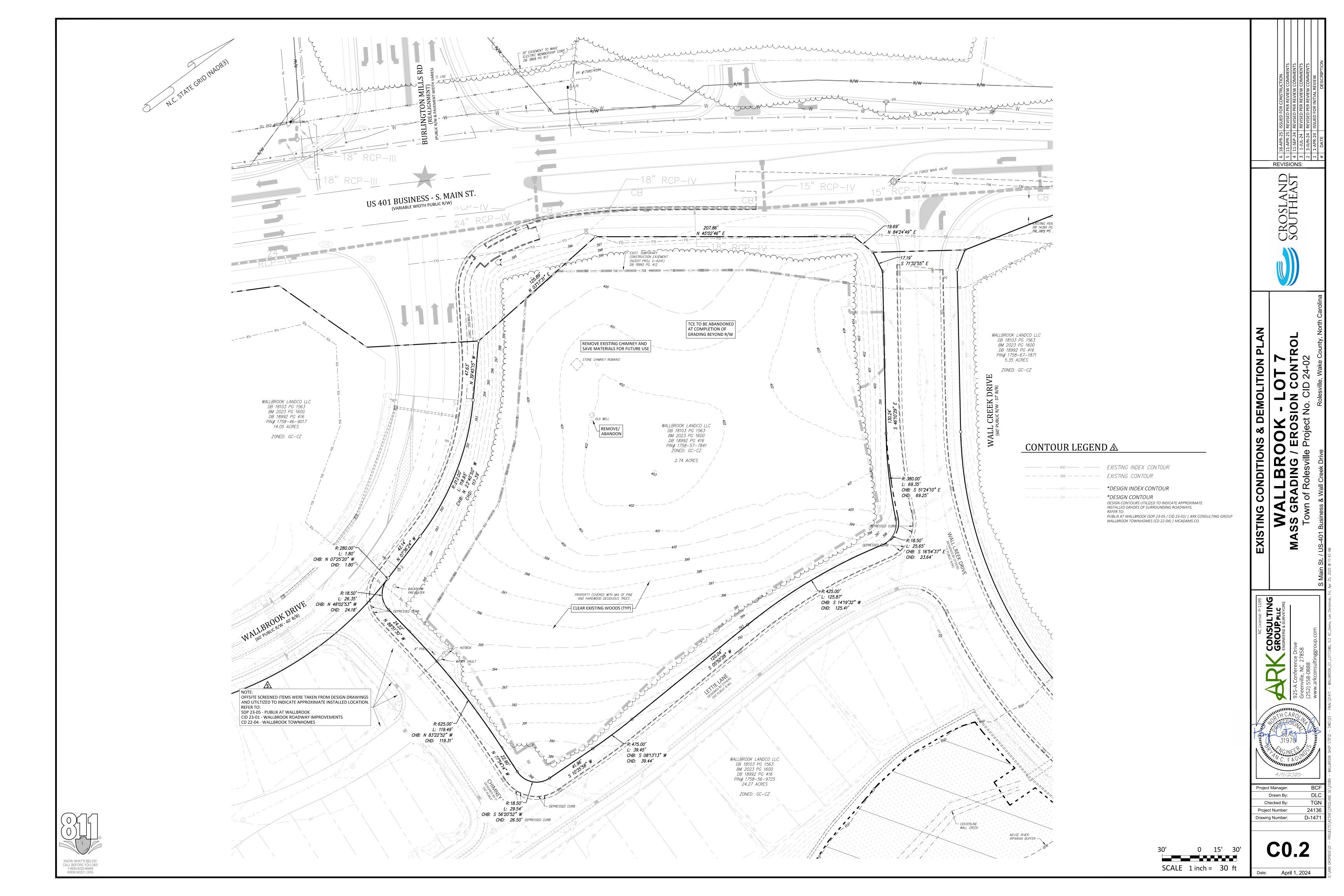
Wallbrook Landco, LLC 3 Keel St, Ste 2 Wrightsville Beach, NC

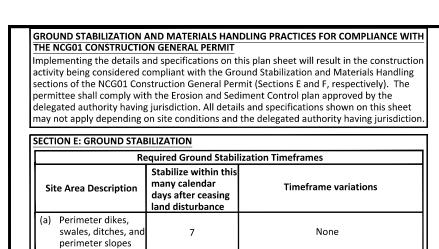
EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT **APPROVED**

EROSION CONTROL X SEC-121765-2024 STORMWATER MGMT. X SWF-145044-2025 FLOOD STUDY

DATE 04/28/2025 Elizabeth Powell

SCALE 1 inch = 100 ft





(b) High Quality Wate None (HQW) Zones f slopes are 10' or less in length and are Slopes steeper tha not steeper than 2:1, 14 days are 7 days for slopes greater than 50' ir ength and with slopes steeper than 4 -7 days for perimeter dikes, swales, Slopes 3:1 to 4:1 ditches, perimeter slopes and HQW -10 days for Falls Lake Watershed days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zon Areas with slopes -10 days for Falls Lake Watershed unless flatter than 4:1 there is zero slope **Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as

racticable but in no case longer than 90 calendar days after the last land disturbing tivity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

ROUND STABILIZATION SPECIFICATIO abilize the ground sufficiently so that rain will not dislodge the soil. Use one of the chniques in the table below:

Permanent Stabilization Temporary Stabilization Temporary grass seed covered with straw or Permanent grass seed covered with straw or other mulches and tackifiers other mulches and tackifiers Hvdroseeding Geotextile fabrics such as permanent soil • Rolled erosion control products with or reinforcement matting without temporary grass seed Hvdroseeding

 Appropriately applied straw or other mulch
 Shrubs or other permanent plantings covered with mulch Plastic sheeting Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt o retaining walls Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.

Apply flocculants at or before the inlets to Erosion and Sediment Control Measures. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging

Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures

EQUIPMENT AND VEHICLE MAINTENANC Maintain vehicles and equipment to prevent discharge of fluids.

Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the

. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem

has been corrected. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum produc

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

to a recycling or disposal center that handles these materials.

Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.

Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers. Anchor all lightweight items in waste containers during times of high winds. Empty waste containers as needed to prevent overflow. Clean up immediately if

containers overflow. Dispose waste off-site at an approved disposal facility. On business days, clean up and dispose of waste in designated waste containers.

Do not dump paint and other liquid waste into storm drains, streams or wetlands.

on a gravel pad and surround with sand bags

foot traffic areas.

Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available. Contain liquid wastes in a controlled area.

Containment must be labeled, sized and placed appropriately for the needs of site. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

RTABLE TOILETS Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot

components when no longer functional. When utilizing alternative or proprietary offset is not attainable, provide relocation of portable toilet behind silt fence or place Provide staking or anchoring of portable toilets during periods of high winds or in high Monitor portable toilets for leaking and properly dispose of any leaked material.

with properly operating unit. EARTHEN STOCKPILE MANAGEMEN

Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably

Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replac

Protect stockpile with silt fence installed along toe of slope with a minimum offset o five feet from the toe of stockpile. Provide stable stone access point when feasible. Stabilize stockpile within the timeframes provided on this sheet and in accordance

with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

CLEARLY MARKED SIGNAGE
NOTING DEVICE (18"X24" MIN.) CLEARLY WARKED SIGNAGE NOTING DEVICE (18"X24" MIN.) THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO B CLEARY MARKED WITH SIGNAGE NOTING DEVICE. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WIT-SIGNAGE NOTING DEVICE. BELOW GRADE WASHOUT STRUCTURE ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

CONCRETE WASHOUTS Do not discharge concrete or cement slurry from the site.

lot perimeter silt fence.

Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within

Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail. Do not use concrete washouts for dewatering or storing defective curb or sidewalk

sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum,

install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the

approving authority. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural

products, follow manufacturer's instructions. . At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

IERBICIDES, PESTICIDES AND RODENTICIDES Store and apply herbicides, pesticides and rodenticides in accordance with label Store herbicides, pesticides and rodenticides in their original containers with the

label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.

AZARDOUS AND TOXIC WASTE

SECTION C: REPORTING

CFR 122.41(I)(7)]

Occurrences that must be reported

They are 25 gallons or more,

Permittees shall report the following occurrences

(Ref: 40 CFR 302.4) or G.S. 143-215.85.

. Reporting Timeframes and Other Requirement

(b) Anticipated bypasses and unanticipated bypasses

(a) Visible sediment deposition in a stream or wetland.

Do not stockpile these materials onsite.

Create designated hazardous waste collection areas on-site. Place hazardous waste containers under cover or in secondary containment.

Do not store hazardous chemicals, drums or bagged materials directly on the ground

SELF-INSPECTION, RECORDKEEPING AND REPORTING

They are less than 25 gallons but cannot be cleaned up within 24 hours,

Releases of hazardous substances in excess of reportable quantities under Section 311

c) Noncompliance with the conditions of this permit that may endanger health or the

After a permittee becomes aware of an occurrence that must be reported, he shall contact

the appropriate Division regional office within the timeframes and in accordance with the

other requirements listed below. Occurrences outside normal business hours may also be

Reporting Timeframes (After Discovery) and Other Requirements

sediment and actions taken to address the cause of the deposition.

Division staff may waive the requirement for a written report on a

If the stream is named on the NC 303(d) list as impaired for sediment.

prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6) • Division staff may waive the requirement for a written report on a

reported to the Division's Emergency Response personnel at (800) 662-7956, (800)

deposition in a • Within 7 calendar days, a report that contains a description of the

(a) Visible sediment • Within 24 hours, an oral or electronic notification

case-by-case basis.

of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA

 They cause sheen on surface waters (regardless of volume), or • They are within 100 feet of surface waters (regardless of volume).

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

| EFFECTIVE: 04/01/1

SELF-INSPECTION, RECORDKEEPING AND REPORTING

f-inspections are required during normal business hours in accordance with the table pelow. When adverse weather or site conditions would cause the safety of the inspection rsonnel to be in jeopardy, the inspection may be delayed until the next business day on hich it is safe to perform the inspection. In addition, when a storm event of equal to o greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

Item to Document

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit The following items pertaining to the E&SC plan shall be documented in the manner

and does not significantly deviate from the of the approved E&SC Plan or complete, date locations, dimensions and relative elevations | and sign an inspection report that lists each shown on the approved E&SC Plan. E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial (b) A phase of grading has been completed. Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the in accordance with the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications. (d) The maintenance and repair Complete, date and sign an inspection report

requirements for all E&SC Measures have been performed. (e) Corrective actions have been taken to E&SC Measures

upon request. [40 CFR 122.41]

Initial and date a copy of the approved E&So Plan or complete, date and sign an inspection report to indicate the completion of the

Documentation Requirements

In addition to the E&SC Plan documents above, the following items shall be kept on the and available for agency inspectors at all times during normal business hours, unless the

Division provides a site-specific exemption based on unique site conditions that make this requirement not practical: (a) This general permit as well as the certificate of coverage, after it is received. (b) Records of inspections made during the previous 30 days. The permittee shall record

the required observations on the Inspection Record Form provided by the Division or

a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records. All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available

related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure complianc with the federal or state impaired-waters conditions. Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and hazardous location of the spill or release. substances per Iter (c) Anticipated A report at least ten days before the date of the bypass, if possible bypasses [40 CFR The report shall include an evaluation of the anticipated quality and effect of the bypass Within 24 hours, an oral or electronic notification • Within 7 calendar days, a report that includes an evaluation of the 122.41(m)(3)] quality and effect of the bypass (e) Noncompliance • Within 24 hours, an oral or electronic notification with the conditions | • Within 7 calendar days, a report that contains a description of the of this permit that may endanger including exact dates and times, and if the noncompliance has not health or the been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

Erosion Control Provisions:

- 1. NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING WAKE COUNTY WATERSHED MANAGEMENT OF THE DATE THAT THE LAND DISTURBING ACTIVITY WILL BEGIN.
- 2. LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE ENGINEER.
- SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE WAKE COUNTY WATERSHED MANAGER, JEEVAN NEUPANE, PE (919-819-8907) PRIOR TO INITIATING LAND DISTURBING ACTIVITIES IS REQUIRED. FOR INSPECTION CALL 919-819-8907. 48 HOUR NOTICE IS REQUIRED.

Demolition Notes:

TRENCHING.

SPECIFICATIONS.

REQUIREMENTS.

OWNER.

ACTIVITIES.

OTHERWISE

THE LOCAL AUTHORITIES.

MATERIALS ARE ENCOUNTERED.

TRAFFIC CONTROL MEASURES.

BE REMOVED SHALL BE PROTECTED

1. CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE-CALL CENTER (NC

ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR

ADVANCE OF ANY LAND DISTURBING ACTIVITY OR DIGGING AND HAVE

811) BY DIALING 811 OR 1-800-632-4949 AT LEAST 72 HOURS IN

2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND

OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR

4. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL

ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE

DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN

THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND

AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL.

RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE

DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED

DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE

CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE

AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT

ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM

ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS

SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY

FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE

5. ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE

6. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE

7. ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE

8. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS,

PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION

9. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND

10. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL

RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE

OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT

MEASURES IN ACCORDANCE WITH THE NCDOT STANDARDS, AND AS

REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG

RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH THE

LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND

AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION

IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED

13. TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO

STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S

LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING

11. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES

12. CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND

REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR.

CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS

3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE

STATE PERMITS REQUIRED FOR DEMOLITION WORK.

PROPOSED

___w___

8"W ———

_____ 12"W _____

 $\bigcirc \bigcirc \bigcirc \bigcirc$

_____100____

_____ TDD _____

— LOD — LOD —

_ - - - - - -

_----

FOUND MONUMENT AS NOTED

DIMENSION POINT (NOTHING SET)

SET IRON PIN

NCGS MONUMENT

PROPERTY LINE

CABLE TV PEDESTAL

RCP = REINFORCED CONCRETE PIPE

= SANITARY SEWER MANHOLE

STORM DRAIN MANHOLE

TELEPHONE PEDESTAL

= PEDESTRIAN X-WALK POLE

= SANITARY SEWER FORCE MAIN VALVE

S.F. = SQUARE FEET (AREA)

TRAFFIC BOX

WATER BOX

----- = SANITARY SEWER FORCE MAIN

= FIRE LINE

= 8"ø WATER LINE

= 12"ø WATER LINE

= DESIGN CONTOUR

= DESIGN CONTOUR

= SILT FENCE

= STORM PIPE

— − − − TCE — = TEMP. CONSTRUCTION EASEMENT

= RIPARIAN BUFFER

= PROJECT AREA

= TREE PRESERVATION AREA

(McADAMS, CO.)

(ARK CONSULTING GROUP)

= TEMPORARY DIVERSION (TDD)

= LIMITS OF DISTURBANCE

= TREE PROTECTION FENCE

= SKIMMER OUTLET DEVICE

= SKIMMER BASIN DRAINAGE AREA - - - - - -TP/LD = WALLBROOK TOWNHOMES (SEC-084327-2022) LIMITS OF DISTURBANCE

= STONE CHECK DAM

= TDD DRAINAGE AREA

- - - s - - = SANITARY SEWER LINE

WM WM = WATER METER

W WV = WATER VALVE

= WELL

----E ---- = ELECTRIC LINE

----- G ----- = GAS LINE

---- FO ---- = FIBER OPTIC LINE

—— т —— = TELEPHONE LINE

----- TV ---- = CABLE TV LINE

---- RIP- = RIPARIAN BUFFER

--- 50 --- = MAJOR CONTOUR (5')

= TREELINE

----- w --- = WATER LINE

W WMH = WATER MANHOLE

= TRAFFIC SIGNAL POLE

R/W = RIGHT OF WAY

C&G = CURB AND GUTTER

DROP INLET

= FLECTRIC BOX

= ELECTRIC METER

HAND BOX

/0 = FIBER OPTIC

🖒 FH = FIRE HYDRAN

G GV = GAS VALVE

-Ò-LP = LIGHT POLE

 $\emptyset PP = POWER POLE$

= SIGN

← GUY WIRE

- 4. INSTALL TREE PROTECTION FENCING AROUND ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS SHOWN ON PLANS.
- PROVIDE 20' X 50' X 6" STONE CONSTRUCTION ENTRANCES AS SHOWN ON PLAN.
- SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
- CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5000.00 PER DAY OF VIOLATION.
- 8. THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
- ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATION AND RULES. IN ADDITION LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE COUNTY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
- 10. PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND TAR RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER RESOURCES (DWR). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, RALEIGH REGIONAL OFFICE AT (919) 791-4200.
- 11. ALL AREAS DOWNSTREAM OF TEMPORARY BASINS AND DITCHES ARE TO BE STABILIZED IMMEDIATELY UPON CONSTRUCTION.

Construction Sequence:

- EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
- 2. CALL WAKE COUNTY WATERSHED MANAGER JEEVAN NEUPANE AT (919) 819-8907 A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING AND FOR NOTIFICATION OF PROJECT START UP. ANY DEWATERING ON THE SITE SHALL BE DONE THROUGH A SILT BAG THAT IS CONSTANTLY MONITORED.
- 4. INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED
- TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- 5. CALL WATERSHED MANAGER, JEEVAN NEUPANE FOR AN ONSITE INSPECTION TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- 6. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE. INSTALL TEMPORARY SKIMMER SEDIMENT BASINS, ALONG WITH TEMPORARY DIVERSION DITCHES THAT SHALL BE INSTALLED TO ENSURE AS MUCH FLOW AS POSSIBLE IS DIRECTED TO THE BASINS. 7. AS ROUGH MASS GRADING CONTINUES, SKIMMER SEDIMENT BASINS SHALL BE MAINTAINED AND CLEANED OF SEDIMENT. IN THE FUTURE SITE-SPECIFIC EROSION CONTROL PLAN SKIMMER SEDIMENT BASINS TO BE
- ABANDONED SHALL BE REMOVED AS FOLLOWS: DEWATER THROUGH SILT BAG, CLEAN SEDIMENT, REMOVE BAFFLES, BACKFILL BASIN AND STABILIZE IMMEDIATELY. DEWATERING OPERATIONS THROUGH SILT BAGS SHALL
- 8. STABILIZE STE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAME.
- 9. WHEN MASS GRADING IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL WATERSHED MANAGER JEEVAN NEUPANE FOR INSPECTION.
- 10. IF SITE IS APPROVED, MAINTAIN TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OR STABILIZED ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS
- VELOCITY DISSIPATERS, SHOULD NOW BE INSTALLED. 11. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR FINAL SITE INSPECTION BY THE WATERSHED MANAGER, JEEVAN NEUPANE. OBTAIN CERTIFICATE OF COMPLETION.

Wake County Basin Removal Sequence:

- SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
- CONTACT NCDEQ RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY. MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS. AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NCDEO-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ONSITE. THE EMAIL SHOULD INCLUDE: E&SC JURISDICTION: WAKE COUNTY, WAKE COUNTY PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, AND ADDRESS THE FOLLOWING: A) REASON FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO FROM PART II. SECTION G. ITEM 4 OF THE NCG01. KEEP EMAIL FOR YOUR NDPES MONITORING DOCUMENTATION
- AFTER RECEIVING POSITIVE CONFIRMATION FROM NCDEQ-DEMLR THAT YOU MAY REMOVE THE BASIN OR ON > DAY 11, WHICHEVER IS SOONER, REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
- PERFORM SEEDBED PREPARATION, SEED, MULCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY.
- 5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
- WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVICE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.

REVISIONS:

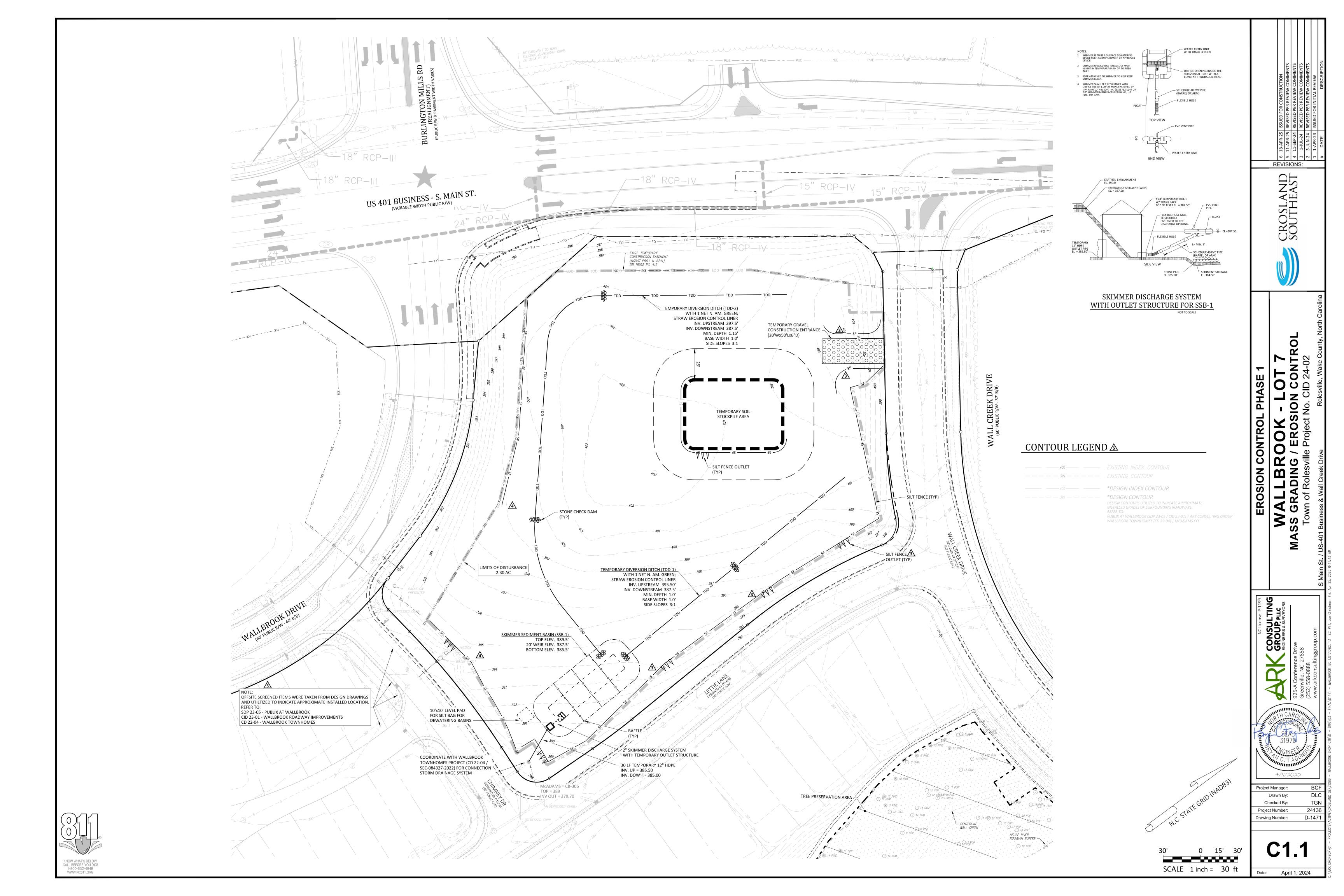


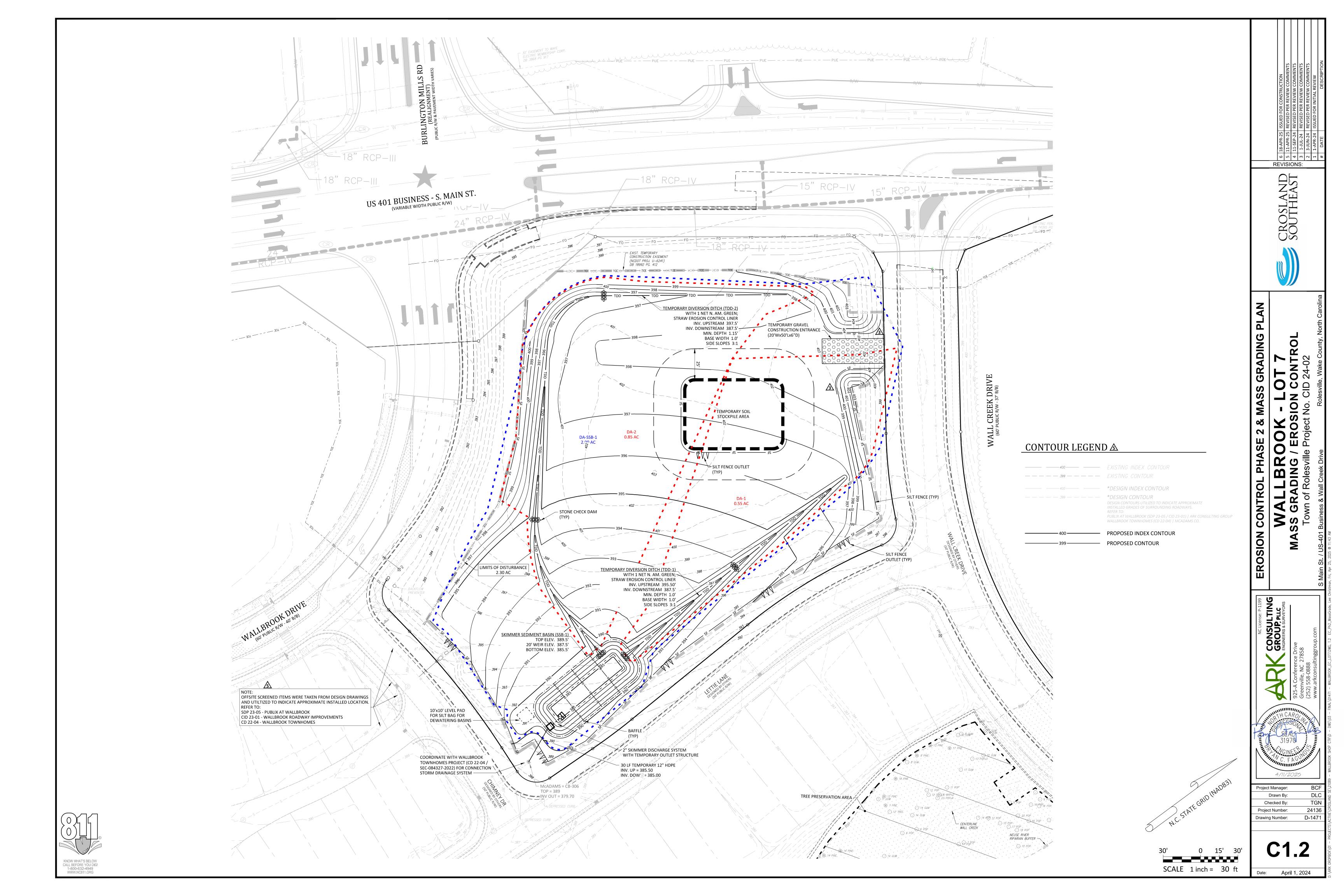
EROSION

Project Manager: Drawn By Checked By Project Number 24136

Drawing Number:

D-1471



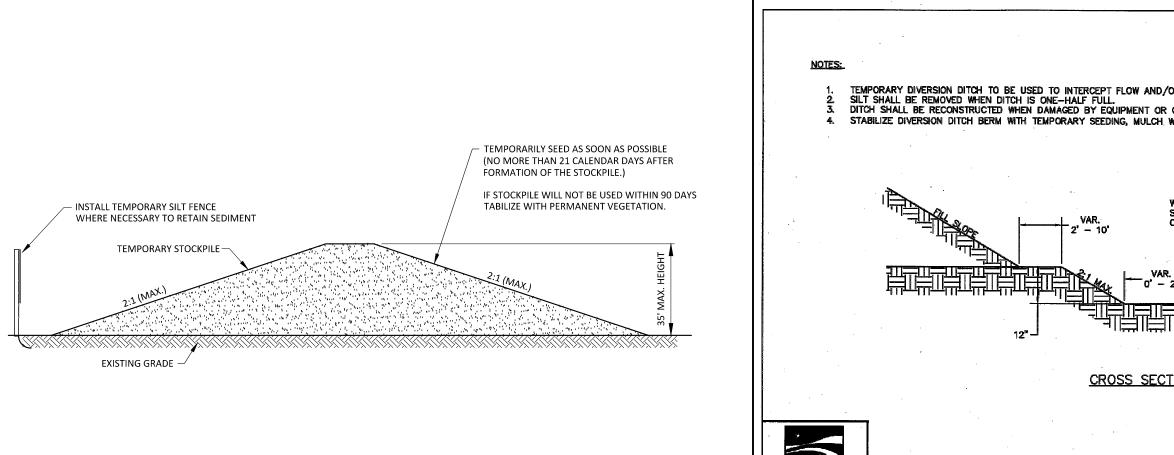


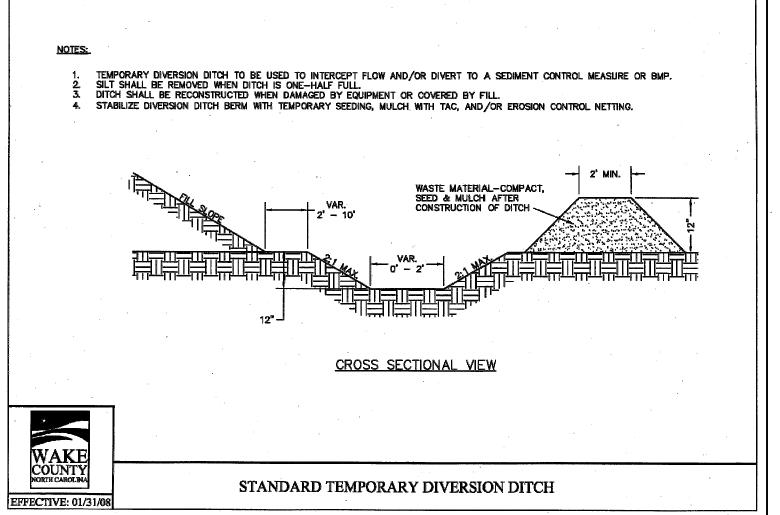


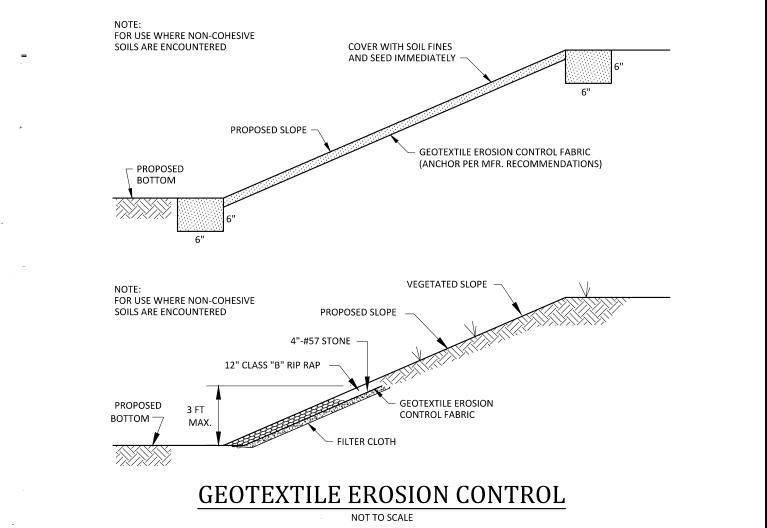
CONSULTING GROUP, PLLC ENGINEERS & SURVEYORS

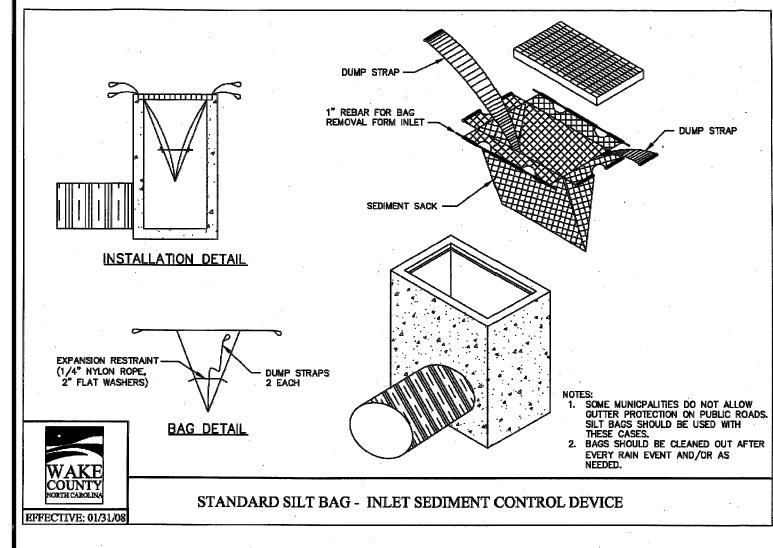
Project Manager: Drawn By: Checked By: 24136 Project Number: D-1471 Drawing Number:

April 1, 2024



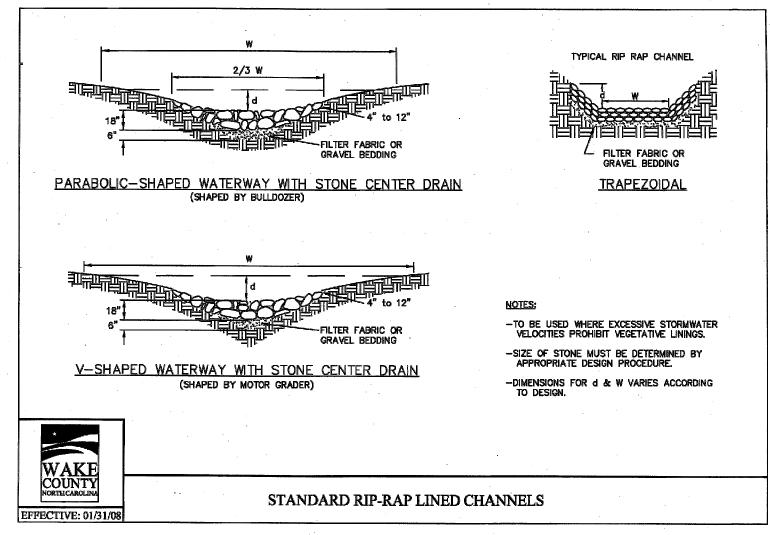


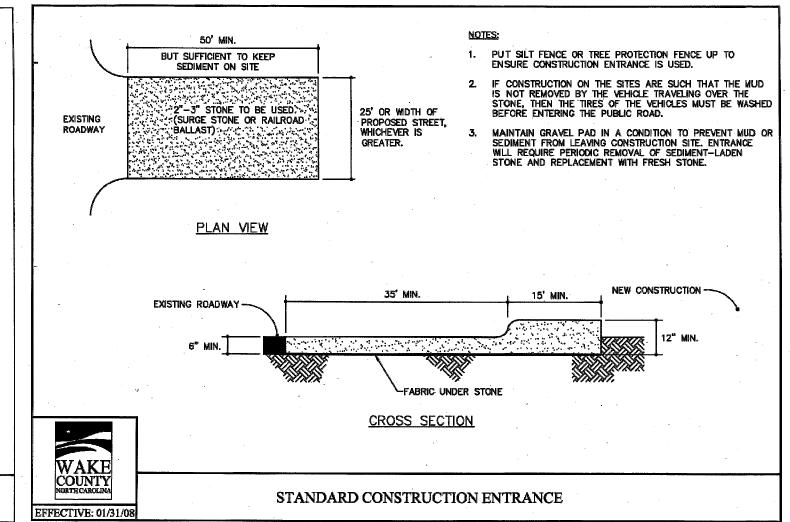


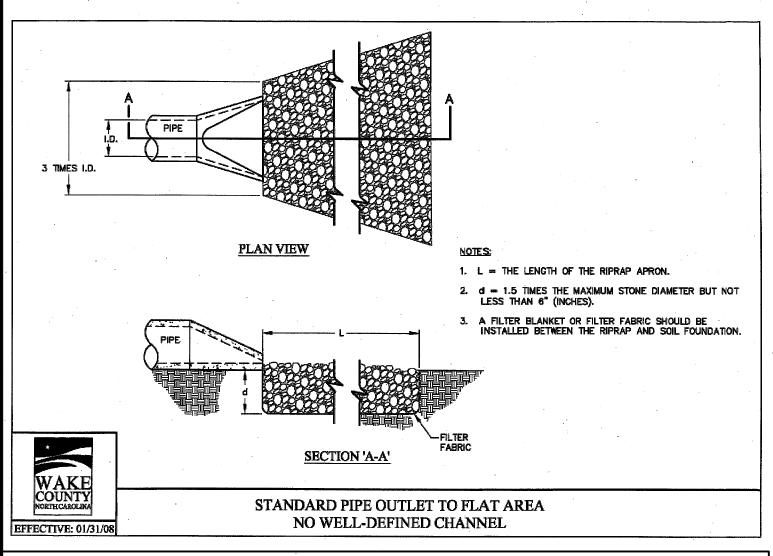


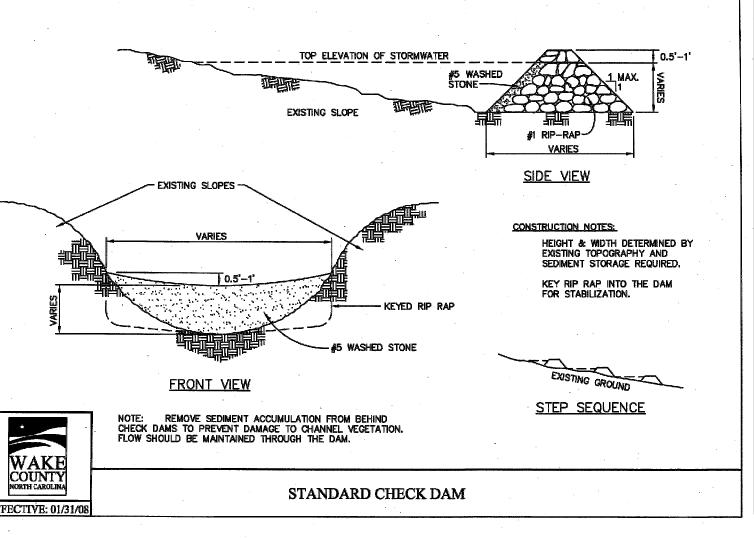
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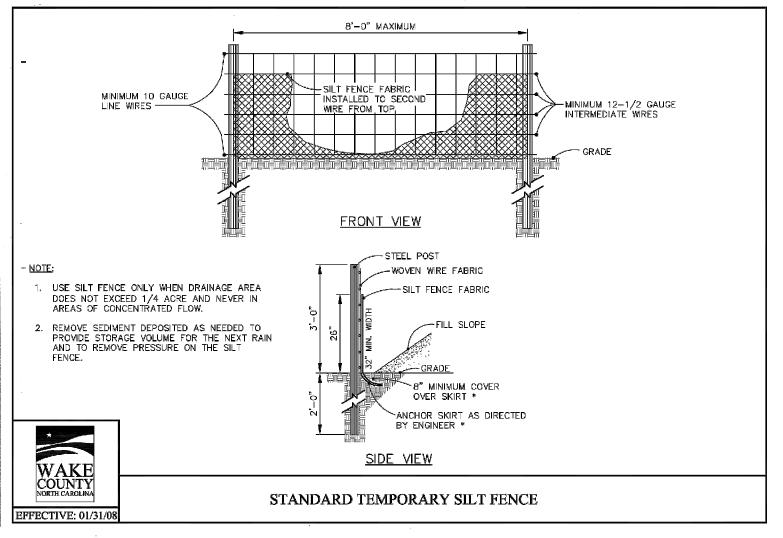
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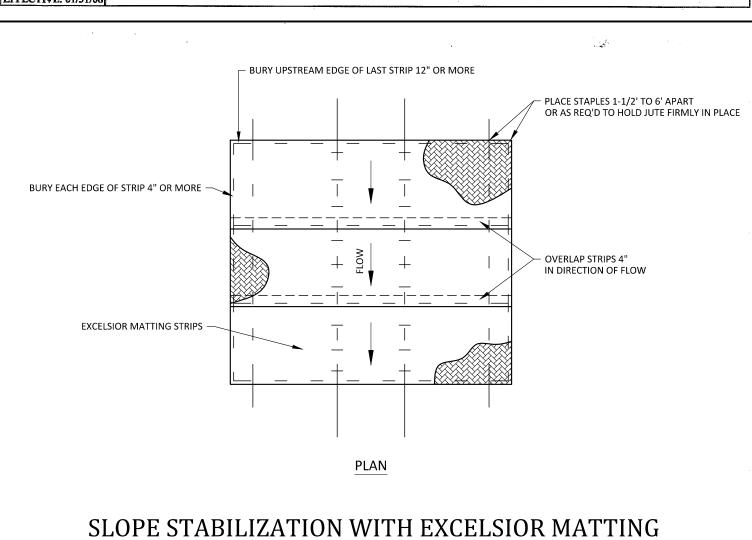


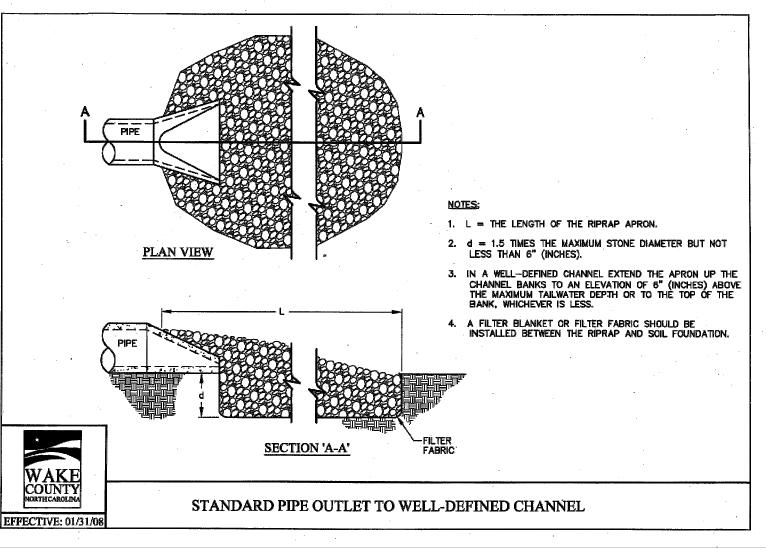


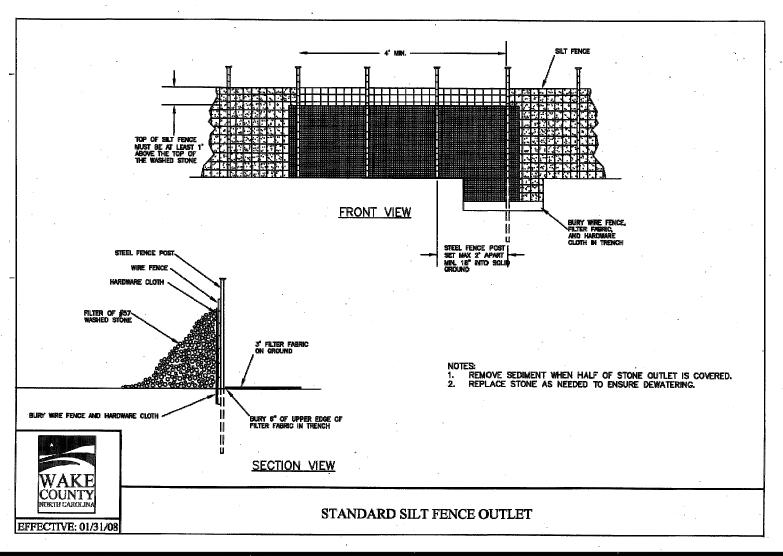


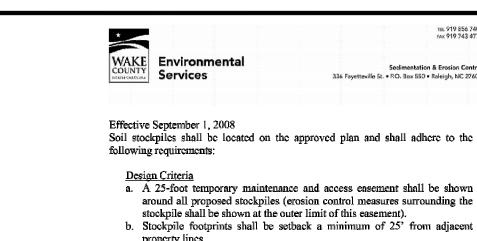












property lines. c. A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet. d. Stockpile slopes shall be 2:1 or flatter.

e. Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile. f. Stockpiling materials adjacent to a ditch, drainageway, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an

alternative location is demonstrated to be unavailable. g. Any concentrated flow likely to affect the stockpile shall be diverted to an approved BMP.

h. Off-site spoil or borrow areas must be in compliance with Wake County

UDO and State Regulations. All spoil areas over an acre are required to have an approved sediment control plan. Developer/Contractor shall notify Wake County of any offsite disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).

Maintenance Requirements to be Noted on the Plan i. Seeding or covering stockpiles with tarps or mulch is required and will reduce erosion problems. Tarps should be keyed in at the top of the slope

to keep water from running underneath the plastic. j. If a stockpile is to remain for future use after the project is complete (builders, etc.), the financial responsible party must notify Wake County of a new responsible party for that stockpile.

k. The approved plan shall provide for the use of staged seeding and mulching on a continual basis while the stockpile is in use. 1. Establish and maintain a vegetative buffer at the toe of the slope (where practical).

Seeding Specifications

NPDES Stormwater Discharge Permit for Construction Activities (NCGO1 - 4/1/19) NCDEQ/Division of Energy, Mineral and Land Resources

Pa	quired Ground State	lization Timetrames
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and a not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 30' in length and with slopes steeper than 4: -7 days for perimeter dikes, swales, dikthes, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes		-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zo
flatter than 4:1 Note: After the permanent ground stabilization shall be	e converted to perm	there is zero slope ction activities, any areas with temporar anent ground stabilization as soon as
Platter than 4:1 Note: After the permanent ground stabilization shall be practicable but in no case activity. Temporary ground surface stable against accel GROUND STABILIZATION S	cessation of constru e converted to perm onger than 90 calend of stabilization shall b lerated erosion until PECIFICATION ently so that rain will ow:	ction activities, any areas with temporar

Seedbed Preparation:

1. Chisel compacted areas and spread topsoil three inches deep over adverse

soil conditions, if available. 2. Rip the entire area to six inches deep.

3. Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.

4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below). 5. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is

prepared four to six inches deep. 6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.

7. Mulch immediately after seeding and anchor mulch.

8. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, reestablish following the original lime, fertilizer and seeding rates.

9. Consult Wake County Soil & Water or NC State Cooperative Extension on maintenance treatment and fertilization after permanent cover is established.

Asphalt emulsion at 400 gals/acre

lbs/acre (Browntop Millet); 30 lbs/acre

(Sorghum-Sudan Hybrids)

Agricultural Limestone 2 tons/acre (3 tons/acre in clay soils) 1,000 lbs/acre -- 10-10-10 500 lbs/acre – 20% analysis 2 tons/acre – small grain straw

Planting Rate

300 lbs/acre Tall Fescue & Abruzzi Rye 300 lbs/acre Tall Fescue 300 lbs/acre

Apr 15- Hulled Common 25 lbs/acre Jun 30 Bermudagrass Jul 1- Tall Fescue AND Browntop 125 lbs/acre (Tall Fescue); 35 Aug 15 Millet or Sorghum-Sudan

For Shoulders, Side Ditches, Slopes (3:1 to 2:1):

Date	Туре	Planting Rate
Mar 1– Jun 1	Sericea Lespedeza (scarified) and use the following combinations:	50 lbs/acre (Sericea Lespedeza);
Mar 1– Apr 15	Add Tall Fescue	120 lbs/acre
Mar 1– Jun 30	Or add Weeping Love grass	10 lbs/acre
	Or add Hulled Common Bermudagrass	25 lbs/acre
Jun 1– Sept 1	Tall Fescue AND Browntop Mullet or Sorghum-Sudan Hybrids***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Mullet); 30 lbs/acre (Sorghum-Sudan Hybrids)
Sept 1– Mar 1	Sericea Lespedeza (unhulled – unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1– Mar 1	AND Abruzzi Rye	25 lbs/acre

Consult Wake County Soil & Water Conservation District or NC State Cooperative Extension for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations

*** **TEMPORARY**: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow more than 12" in height before mowing; otherwise, fescue

CROSLAND SOUTHEAST

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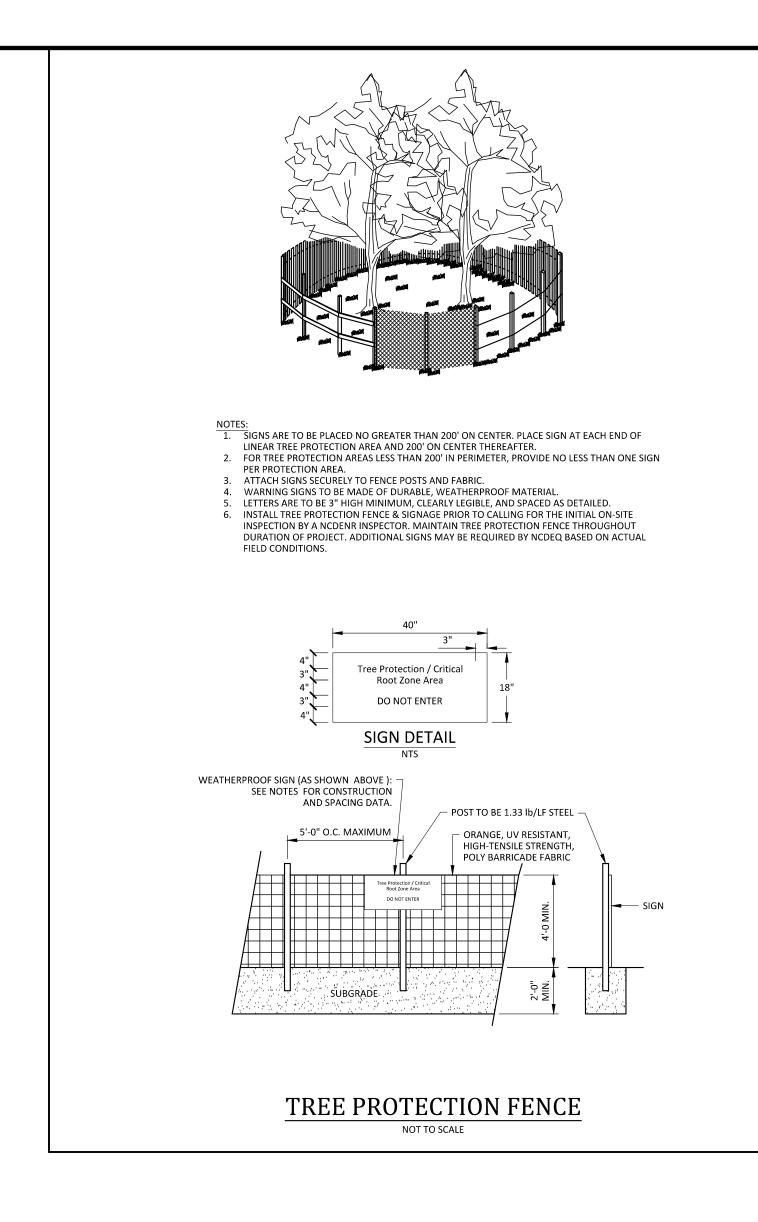
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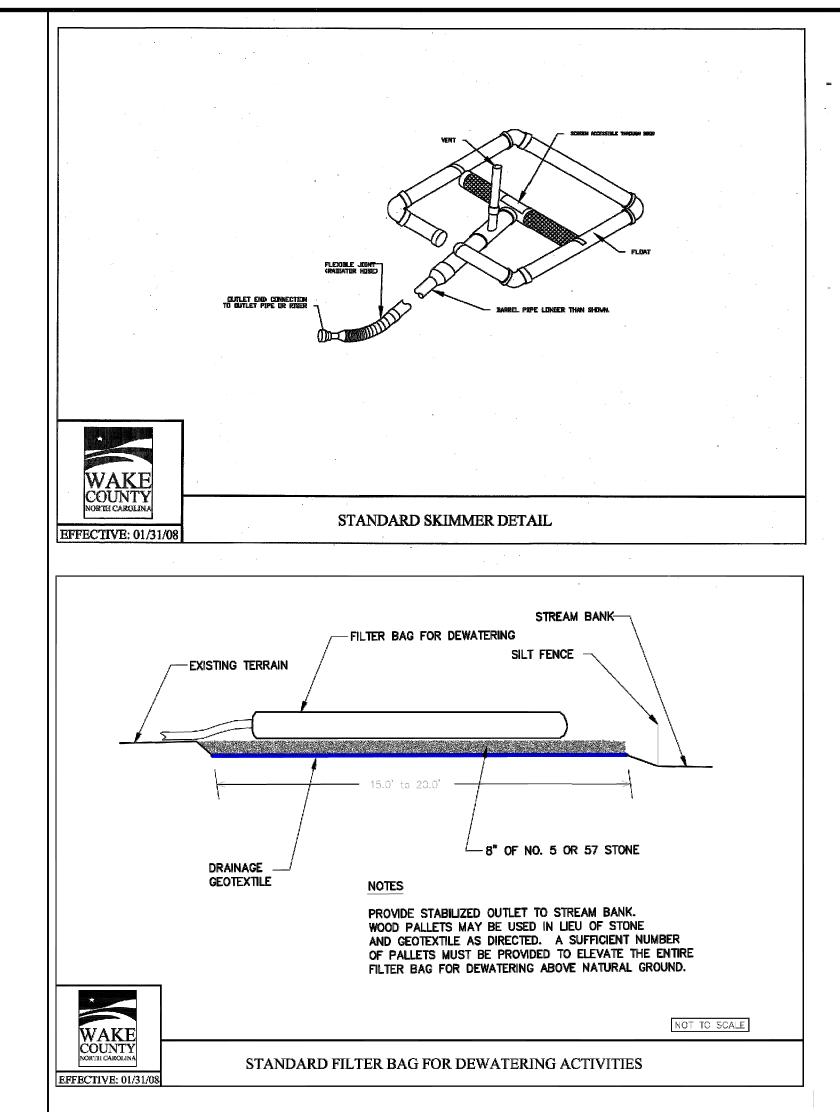
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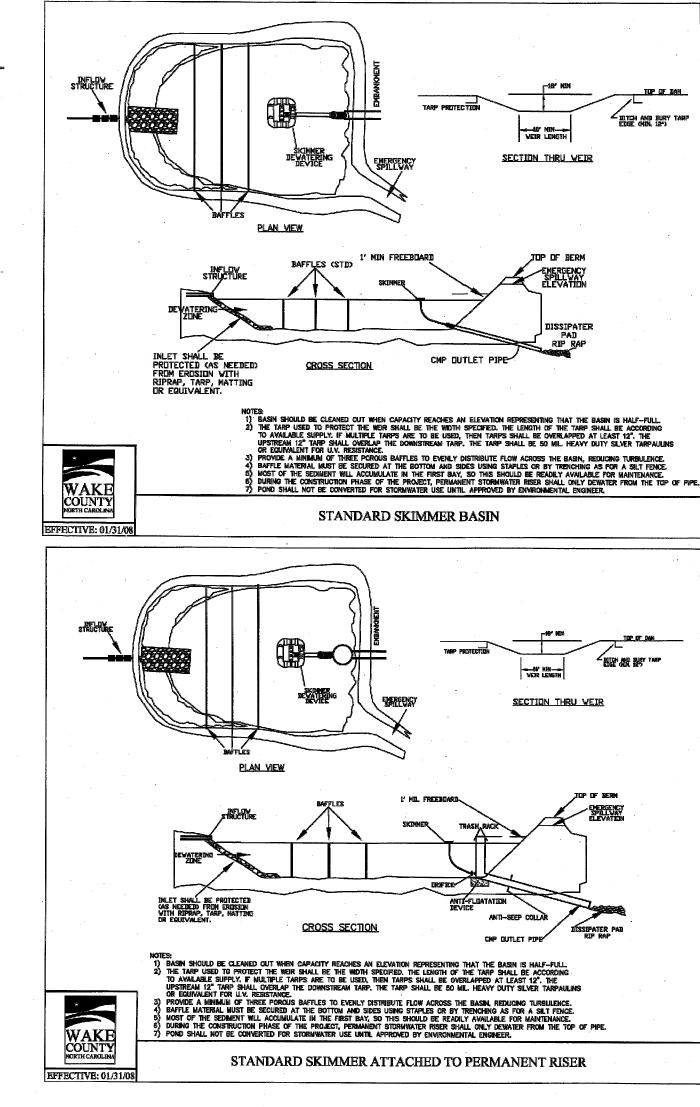
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Project Manager: Drawn By:

April 1, 2024







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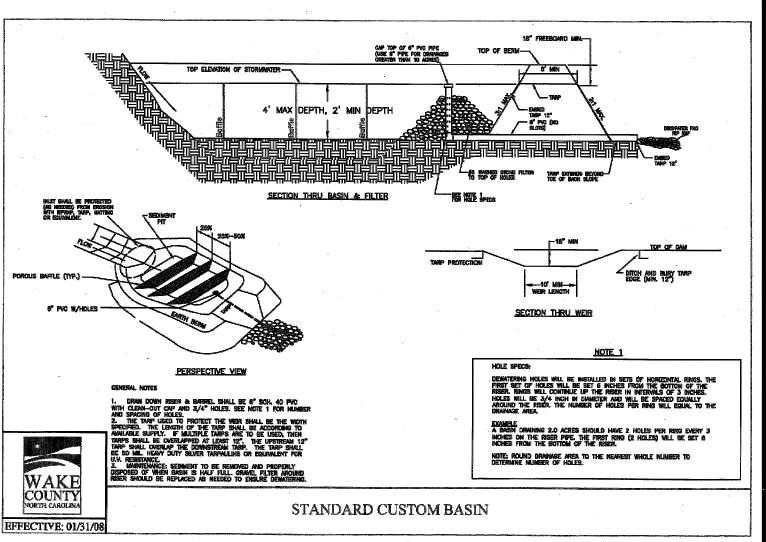
CROSLAND SOUTHEAST

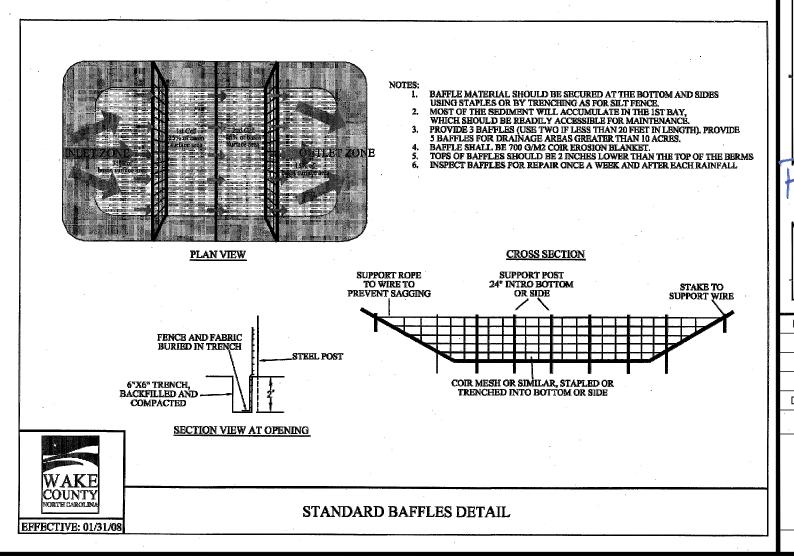
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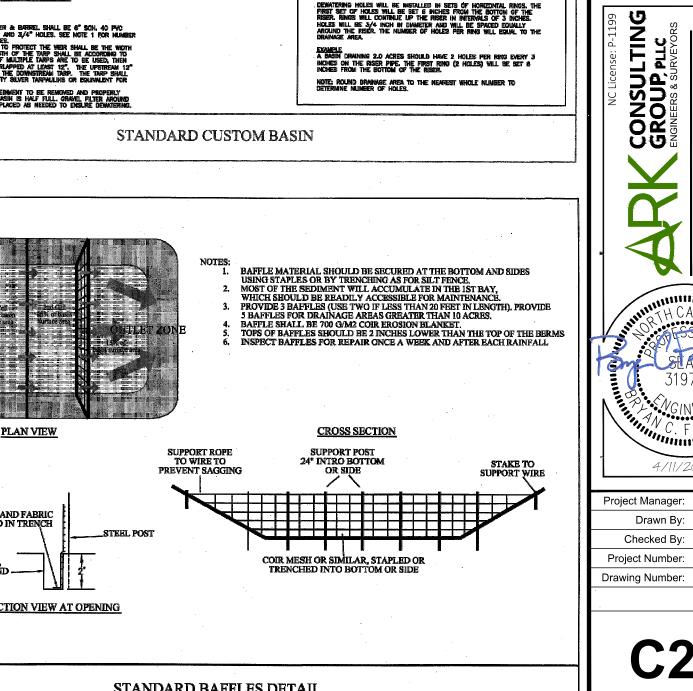
WALLBI SS GRADING Town of Rolesy

24136 D-1471

April 1, 2024







Temporary Sediment Traps, Skimmer Sediment Basins, and Temporary Sediment Basins

Weir Width Depth Depth to Depth Below Side Slope Top Length Top Width Skimmer Orifice
 Device
 Type
 (ft)
 (ft)
 Weir (ft)
 Weir (ft)
 (x:1)
 (ft)
 (ft)
 Size (in)
 (in)

 SSB-1
 Skimmer Sediment Basin
 20
 0.2
 1.5
 2.0
 3.0
 92
 39
 2.00
 1.00

											Base	Left	Right	Flow			Wetted	Wetted	Hydraulic						Allowable Sho
Device		Add'l Flow	/ Disturbed	Tc	Intensity		Qreq	Up	Down	Length	Width	Slope	Slope	Depth		Slope	Area	Perimeter	Radius	Velocity	Qa				Stress, 7
ID	Device Type	(cfs)	Area (AC)	(min)	(in/hr)*	С	(cfs)	Invert	Invert	(ft)	(ft)	(x:1)	(x:1)	(ft)	Manning's n	(ft/ft)	(sf)	(ft)	(ft)	(ft/s)	(cfs)	Qa>Qreq?	$ au$ (lbs/ft 2)	Liner Type	(lbs/ft ²)
Swale-1	Swale	0.0	0.85	5	7.18	0.5	3.05	395.5	388.5	326	1	3	3	1.30	0.030	0.02147	6.39	7.54	0.85	0.48	3.05	Yes	1.744966884	N. Am. Green; Straw; 1 nets	1.55
Swale-2	Swale	0.0	0.95	5	7.18	0.5	3.41	397.5	388.5	555	1	3	3	1.49	0.030	0.01622	8.15	7.70	1.06	0.42	3.41	Yes	1.507945899	N. Am. Green; Straw; 1 nets	1.55

											Base	Left	Right	Flow			Wetted	Wetted	Hydraulic						Allowable Shear
Device		Add'l Flow	Disturbed	Tc	Intensity	Qr	eq l	Jp Do	own l	Length	Width	Slope	Slope	Depth		Slope	Area	Perimeter	Radius	Velocity	Qa				Stress, $ au$
ID	Device Type	(cfs)	Area (AC)	(min)	(in/hr)*	c (cf	s) Inv	vert In	vert	(ft)	(ft)	(x:1)	(x:1)	(ft)	Manning's n	(ft/ft)	(sf)	(ft)	(ft)	(ft/s)	(cfs)	Qa>Qreq?	$ au$ (lbs/ft 2)	Liner Type	(lbs/ft²)
TDD-1	Temporary Diversion	0.0	0.75	5	7.18	0.5 2.0	69 39	95.5 38	87.5	266	1	3	3	0.96	0.020	0.03008	3.75	7.30	0.51	0.72	2.69	Yes	1.808237032	N. Am. Green; Straw; 1 nets	1.55
TDD-2	Temporary Diversion	0.0	0.80	5	7.18	0.5 2.8	87 39	97.5 38	87.5	475	1	3	3	1.12	0.020	0.02105	4.85	7.40	0.66	0.59	2.87	Yes	1.466147893	N. Am. Green; Straw; 1 nets	1.55

*NOAA Atlas 14, NEUSE 2 NE Station, 10-yr 5-min duration intensity

