Date: January 15, 2018

Owner: City of Flowery Branch, Georgia

Project: WWTP Effluent Discharge F.M. Replacement

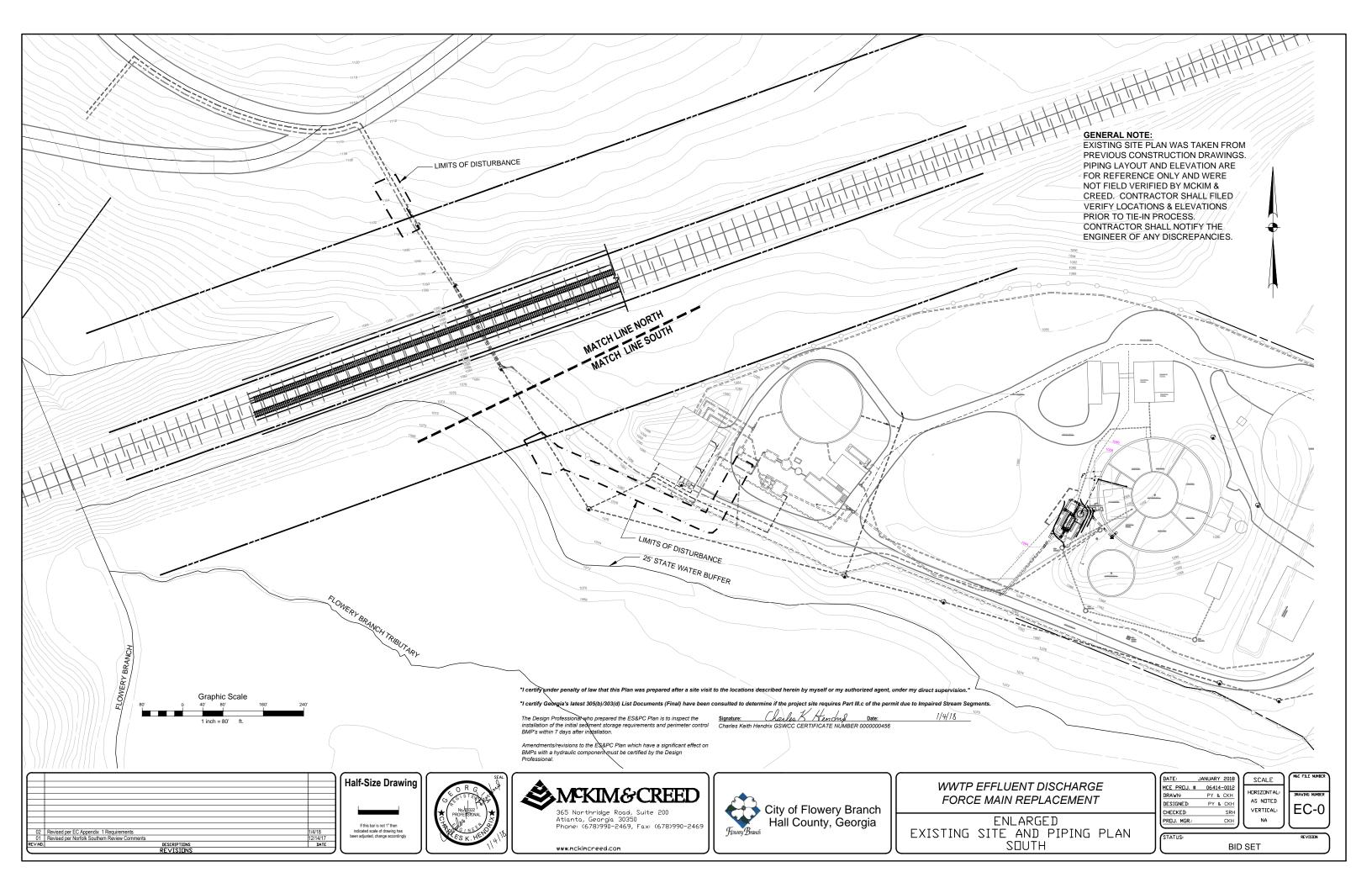
Project No.: 06414-0012

ADDENDUM NUMBER ONE

- 1. The following Addendum hereby amends and/or modifies the Contract Documents and any previous addenda as indicated and as issued by McKim & Creed. All Bidders are subject to the provisions of this Addendum. Bidders shall acknowledge receipt of this Addendum on the Bid Form.
- 2. Change all references for the bid date to: **Tuesday**, **February 27**, **2018**, **1:00 PM**, **local time**.
- 3. Change all references for the non-mandatory Pre-Bid Conference to: **Tuesday**, **February** 13, 2018, 1:00 PM, local time.
- 4. Replace drawings EC-1, EC-2, EC-3, EC-4, and EC-5 with the attached drawings EC-0, EC-1, EC-2, EC-3, EC-4, and EC-5 with a revision date of 1/4/18 and revised note: per EC appendix 1 requirements in the revision box.

End of Addendum Number One

Keith Hendrix, PE McKim & Creed



EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN (ESPCP)

General Note: All measures outlined in this plan are to be in accordance with the "Manual for Erosion and Sediment Control in Georgia." latest edition.

Project Name: WWTP Effluent Discharge Force Main Replacemen

Location: Hall County, Georgia District 8; Land Lots 117

GPS: Latitude N 34.1794°, Longitude E 83.9314°

Narrative Notes and Other informat

Project Description: This project consists of replacement of portion of the existing "outfall" forcemain with approximately 550-ft of new 16-inch HDPE forcemain including associated fittings and 255 ft. of 20-inch protective steel casing under Norfolk-Southern railroad track.

Owner Information

Flowery Branch WPCP

Contact: Jimmy Dean 678-776-1074 & 770-967-2151

. 24-hour Local Erosion and Sedimentation Control Contact:

Jimmy Dean

678-776-1074 & 770-967-2151 Total Project Area: 7.72 AC; Disturbed Acreage: 0.14 AC, 1.81% of site.

- The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and
- practices prior to, or concurrent with, land disturbing activities .
- Erosion control measures will be maintained at all times. if full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
- Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding
- Any construction activity which discharges storm water into an impaired stream segment, or within 1 linear mile upstream or within the same watershed as, any portion of a biota impaired stream segment must comply with part iii.c. of the permit, include the completed appendix 1 listing all BMPs that will be used for those areas of the site which
- discharge to the impaired stream segment. (See EC-04)
 Runoff coefficient or peak discharge flow of the site prior to and after construction.

Outfall Improvements

Pre-"CN" Post-"CN" 25-Year Runoff (cfs) 64.0

THIS IS A LINEAR PROJECT AND SITE WILL BE RETURNED TO THE ORIGINAL OR BETTER CONDITIONS THAN ORIGINAL (ALL DISTURBED AREAS WILL BE SOD) TOTAL SITE IS 7.72 Ac and is bordered by Norfolk Railroad, Atlanta Hwy and Flowery Branch

Tributary. TOTAL EXISTING DRAINAGE AREA IS 18.4 Ac. The NPDES permit requires that storm water runoff from a site not increase the turbidity of receiving streams by 25

NTU (Nephelometric Turbidity Unit) or more when monitoring upstream and downstream locations. See sheet EC-02 for Monitoring Point Location

- Upstream conditions are urban areas with paved roads, grassed yards and tree lines
- Downstream Conditions

Downstream conditions are urban areas with paved roads, grassed vards and tree lines. Post-construction will be identical to onstruction conditions with grassed areas re-grassed and paved areas re-paved

Name of Receiving Waters A: Lake Lanier: B:Flowery Branch

(0) Acres Total / No Impact (No soil disturbance proposed in delineated wetlands areas)

- Site Map: See Sheet EC-2
- D. <u>Primary Permittee</u>: City of Flowery Branch, GA.

5517 Main Stree

Flowery Branch, GA, 30542

. Detention pond or sediment basin/storage will be installed and functioning before any major grading or impervious surfaces are

	cons Site	TUCOL TYPES							
٠.	Oile	Symbol	Soil Name	* Depth	Erodibility	Permeability	Texture	HSG	pН
		PuD2	Pacolet	>80*	Meduim to rapid runoff	0.60 - 2.0	Fine, kaolinitic Typic Kanhapludults	В	4.5 - 6.5

Soils information was taken form the U.S. Department of Agriculture - Natural Resource Conservation Service Soil Survey Map for Hall County, Georgia. Refer to soils map for more

I. Pollution Controls

- A. Cut and Fill
- Operations shall be kept to a minimum, phase if possible 2. Shall not endanger adjoining properties.
- 3. Fills shall not encroach upon natural watercourses. Channels shall be constructed in a manner so as to not adversely
- affect other property owners.

 4. Minimize damage from surface water to the cut face of excavations or the sloping surfaces of fills.
- B. State Water Banks
- Non-Exempt activities shall not be conducted within twenty-five (25) feet of the banks of any State waters, as measured from the point where vegetation has been wrested by normal stream flow or wave action, accept when approved by the Director for alternate buffer requirements.

 Non-Exempt activities shall not be conducted within fifty (50) horizontal feet, as measured from the point where
- vegetation has been wrested by normal stream flow or wave action, of the banks of any State waters classified as "trout am" flow unless approved by the Director for alternate buffer require The Owner is responsible for obtaining any stream buffer variances from EPD
- . Vehicle areas Fill in rill eroded areas when found.
- 2. Temporary Mulching When an area will be left open more than 14 days with no construction.
- Sod stabilization Used in higher velocity channel flows.
 Sod stabilization Used in higher velocity channel flows.
 Permanent vegetation This is to be established once final grade is achieved.
 Surface roughening: Texturing of soil surfaces to reduce sheet flow and improve surface water impoundment. Sediment Basins - Shall be inspected to insure stable side slopes.
- D. Structural controls to be used See ES&PC Plan: Sheets EC-03

E. Other Controls

1. Off-site vehicle tracking
A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site will be swept

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A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. trucks, especially during periods of wet weather, may be provided in order to minimize the amount of street sweeping and scraping required. Any wastewater resulting from this operation will be directed into a sediment trap.

All trash and construction debris from the site will be hauled to an approved landfill. No construction waste material will be buried on-site or discharged to waters of the State except as authorized by a section 404 permit. All personnel will receive instructions regarding the correct procedure for waste waters of the state success as uniformed by a section 404 permit. An pleastness will be restained the construction office. The site superintendent will be responsible for seeing that these procedures are followed. Employee waste and other loose materials will be collected so as to prevent the release of "floatables" during runoff events. Documentation that compliance during and after construction activities must be kept with all retained documents.

3. Hazardous waste

No hazardous waste is expected to be generated or encountered in this project. In the event that hazardous waste is encountered, all hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. The site superintendent will be responsible for seeing that these practices are followed. Documentation that compliance during and after construction activities must be kept with all retained documents.

The Contractor shall provide portable sanitary units as required. A licensed sanitary waste management, contractor will regularly collect all sanitary waste from the portable units. Documentation that compliance during and after construction activities must be kept with all retained docu

Grading Equipment shall cross-flowing streams by the means of bridges or culverts, except when such methods are not feasible, provided in any case

III. Materials and Safety

Note: This section is provided for informational purposes only. All Material Safety and Spill Prevention Control Contingency (SPCC) plans are to be in

A. Significant Materials Expected at Site Inventory

that such crossings should be kept to a minimum

- Lumber
- Ductile iron, PVC & HDPE pipe
 Dies
 Steel reinforcing bars and related materials - Diesel fuel and lubricating oils

B. Spill Prevention and Response Procedures
Spill prevention and response includes "Good Housekeeping" as well as specific practices for certain products and established procedures for responding to spills which do occur.

Concrete mix

- C. Practices for Products, "Good Housekeeping"
 1. Materials An effort will be made to store only enough material required to do the job.
 2. Storage All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers and stored in a covered area. If storage in a covered area is not possible the materials will be covered with polyethylene or polypropylene sheeting to protect them from the elements
- 3. Mixing Substances will not be mixed with one another unless recommended by the manufacturer.
 4. Labeling Products will be kept in their original containers with the original manufacturer's label affixed to each container.
 5. Disposal Whenever possible, all of a product will be used before disposing of the container. Manufacturer recommendations for proper use and disposal
- 6. Inspections The site superintendent will inspect the site regularly to ensure proper use and disposal of materials on-site
- 7. Spoil materials Any excavated earth that will not be used for fill material and all demolished pavement will be hauled off site immediately and disposed of
- D. Specific Product Practices
- | Petroleum Products All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. If petroleum products will be present at the site, they will be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used on-site will be applied according to the manufacturer recommendations
- Concrete Trucks Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water at the site
- 3. Paints All containers will be tightly sealed and stored when not required for use. Excess paint will not be poured into the storm sewer system but will be
- Familia- An containers will be upingly sealed and soliced writer into required to duse. Excess paint will not be poured into the storm sewer system but will be properly disposed of according to manufacturer instructions or State and local regulations.
 Fertilizers Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. The fertilizer will be stored in a covered area and any partially used bags will be transferred to a sealable plastic bin to avoid spills.
- E. Spill Control and Response Practices
 The site superintendent will designate a spill prevention and response team. In addition, the following practices will be followed for spill cleanup.
- 1. Information Manufacturers recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- 2. Equipment Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not be limited to brooms, shovels, rags, gloves, goggles, absorbent materials (sand, sawdust, etc.) and plastic or metal trash containers specifically for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on-site.

 3. Response All spills will be cleaned up immediately upon discovery.
- 4. Safety The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous 5. Reporting - Spills of toxic of hazardous material (if present on site) will be reported to the appropriate state or local government agency, regardless of the
- 6. Record keeping The spill prevention plan will be modified to include measures to prevent this type of spill from reoccurring as will as improved methods for cleaning up future spills should they occur. A description of each spill, what caused it, and the cleanup measures used will be maintained with the plan.
- IV. NPDES Permit Information

The following information shall comply with the NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY INTO THE WATERS OF THE STATE OF GEORGIA Specifically the NPDES General Permit No. GAR100002, Authorization To Discharge Under The National Pollutant Discharge Elimination System Storm Water Discharges Associated With Construction Activity For Infrastructure Projects, further referred to as the general permit or the permit

Deadlines for Notification (to be filed by Primary Permittee)

1. Owners or Operators or both who intend to obtain coverage under this general permit for storm water discharges from a construction site (where construction activities begin after issuance of this permit), shall submit a Notice of Intent (NOI) in accordance with the requirements of this Part at least ourteen (14) days prior to the commencement of construction activities.

See General Permit No. GAR 100002 for further deadlines and exemptions

The Notice of Intent Shall be Submitted by the following procedure (to be filed by Primary Permittee)

NOIs are to be submitted by return receipt certified mail (or similar service) to both the appropriate District office of the EPD and to the local Issuing Authority in jurisdictions authorized to issue a Land Disturbance Activity permit for the permittee's construction site pursuant to O.C.G.A. 12-7-1, et seq. If an electronic submitted service is provided by EPD then the NOI may be submitted electronically so long as a paper copy is also submitted by return receipt or similar

Applicable Fees (to be paid by Primary Permittee).

Any applicable fees shall be submitted by the Primary Permittee in accordance with Rules and Regulations for Water Quality Control (Rules) promulgated by the Board of Natural Resources. By submitting an NOI for coverage under this permit the primary permittee agrees to pay any fees required, now or in the future, by such Rules authorized under O.C.G.A. Section 12-5-23(a)(5)(A), which allows the Board of Natural Resources to establish a fee system. Fees may be assessed on land disturbing activity proposed to occur on or after the effective date of this permit and shall be paid in accordance with such Rules

- Stormwater Sampling Shall be Conducted (to be completed by Primary Permittee)

 This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit.
 - Receiving waters
 - a. The downstream sample upstream sample ≤ 10 NTUs for Trout Streams The downstream sample - upstream sample ≤ 25 NTUs for Warm Water Streams
- Outfalls

 Turbidity of storm water outfalls shall not exceed the values determined from Appendix B of the NPDES Permit.

Half-Size Drawing





www.mckimcreed.com

Sampling Requirements

All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been proved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD (1). Sample containers should be labeled prior to collecting the samples.

- (2). Samples should be well mixed before transferring to a secondary containe
- 3), Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination
- (4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic amplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the utilized sevent, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter samples are not required to be cooled.
- (5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E

Stormwater Sampling Points

For construction activities the primary permittee must sample all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other filed verified perennial and intermittent streams and other water bodies, or all outfall into such streams and other water bodies, or a combination thereof. However, provided for in an din accordance with Part IV.D.6.c.(2), of this permit, primary permittees on an infrastructure construction project may sample the representative perennial and intermittent streams, other water bodies or outfalls, or a combination thereof. Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the storm water outfalls using the following minimum guidelines:

- (a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the farthest storm water discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but
- downstream of any other storm water discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may red and the arithmetic average of the turbidity of these samples used fro the upstream turbidity value.

 (b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last storm water discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other storm water discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) must be taken and the arithmetic average of the turbidity of these
- samples used for the downstream turbidity value. (c) Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the storm water outfall channel(s).

- (d) Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water channel.

 (e) The sampling container should be held so that the opening faces upstream.

 (f) The samples should be dept free from floating debris.

 (g) Permittees do not have to sample sheetflow that flow onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for unpaved areas and areas not covered by permanent structures, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region). For infrastructure construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by stabilizing the disturbed land fro its agricultural or silvicultural use.

 (h) All sampling pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether storm water runoff from the construction site is in compliance with the standard ser froth in Parts III.D.3. or III.D.4., whichever is applicable.

- Sampling Frequency

 (1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a
- (1). The pinnary permittee must sample in accordance with the rain at least once of each rain and event to each ra after the beginning of the storm water discharge
- (3). Sampling by the permittee shall occur for the following events:
- (a). For each area of the site that discharges to a receiving or from an outfall, the first rain event that reached or exceed 0.5 inch with a storm water discharge that occurs during normal business hours as defined in the is permit.

 After all clearing and grubbing operation shave been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the representative sampling location;

 (b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceed 0.5 inch with a storm water discharge that occurs during normal business hours as defined in the is permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittate of a NOT, in the drainage area of the location selected as the
- representative sampling location, whichever comes first; (c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site are not properly designed, installed and maintained, corrective action shall be defined and implemented within (2)
- (c). At the time of sampling performed pursuant to (a) and (b) above, it BMPs in any area of the site are not properly designed, installed and maintained, corrective action shall be defined and implemented within (2) business days, and furbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspection revent inspection report of why sampling was not performed. Providing this justification does not relieve the because three was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification does not relieve the permittee of any subsequent sampling obligations under (s), (b), or (c) above; and (e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the samplingrequired by (a) above shall sample in accordance with (b). Those existing construction activities

that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above. *Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week

1. The applicable permittees are required to submit sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results to a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basins. Sampling and analysis of any storm water dischare(s) to the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to EPD. The sampling reports must be signed in accordance with Part V. Q.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI. 2. All sampling reports shall include the following information:

- a. The rainfall amount, date, exact place and time of sampling or measurements
- b. The name(s) of the certified personnel who performed the sampling and measurements. . The date(s) analyses were performed;
- . The time(s) analyses were initiated;
 . The name(s) of the certified personnel the analyses;
- f. References and written procedures, when available, for the analytical techniques or methods used;
- g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results; and
- . Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU:" and

1. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of th proof of submittal at the construction sixte or the proof of submittal at the construction sixte or the proof of submittal at he accordance with Part VI. If an electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

- Retention of Records.

 1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at the designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI-X copy of all Notices of Intent submitted to EPD;

 a. A copy of the Erosion, Sedimentation and Pollution Control Plan required by the permit;
- The design professional's report of the results of teh inspection conducted in accordance with Part IV.A.5 of this permit:
- A copy of all inspection reports generated in accordance with Part IV.2.4 a.d (b) lispermit;

 A copy of all inspection reports generated in accordance with Part IV.2.4.a. of this permit;

 A copy of all inspection reports generated in accordance with Part IV.2.4.a. of this permit;

 A copy of all violation sumaries and violation summary reorts generated in accordance with PartIII.2.2. of his permit; and Daily rainfall information collected in accordance with Part IV.4.a(2). of this permit.
- Daily failing information collected in accordance with Part V. 4. a(z). or this permit of Copies of all Notices of Intent, Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recording for continuous monitoring imentation), or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of a least three years from the date that the NOT is submitted in accordance with Part VI of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity have ceased at the permitted site. This period may be extended by request of the EPD at nay time upon written notification to

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision."

Signature:

"I certify Georgia's latest 305(b)/303(d) List Documents (Final) have been consulted to determine if the project site requires Part III.c of the permit due to Impaired Stream Segments

Charles K Hendris

The Design Professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control

Charles Keith Hendrix GSWCC CERTIFICATE NUMBER 0000000456 BMP's within 7 days after installation Amendments/revisions to the ES&PC Plan which have a significant effect on

BMPs with a hydraulic component must be certified by the Design

City of Flowery Branch Hall County, Georgia

Hall County, Georgia

WWTP EFFLUENT DISCHARGE FORCE MAIN REPLACEMENT

> ES & PC PLAN GENERAL NOTES

JANUARY 2018 MCE PROJ. # 06414-0012 PY & CKH DRAWN: DESIGNED: PY & CKH CHECKED: PROJ. MGR.: CKH

Date:

SCALE HORIZONTAL AS NOTED VERTICAL

SUTATE BID SET

- Permittee requirements.

 (1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

 (2). Measure rainfall every 24 hours except any non-working Saturday, non-working Sounday and non-working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall my be suspended if all areas of the site have undergone final stabilization or established a crow of anguly eventations and a seeding or target personnels somponised for the region.
- Notice of Lemination is submitted. Measurement of raintain my be suspended if all areas or the site have undergone that stabilized a crop of annual vegetation and a seeding of target perennials appropriate for the region.

 (3). Certified personnel (provided by the primary permittee) shall inspect at least once every fourteen (14) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater (unless such storm ends after 5:00 PM on any Friday or on any non-working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first):

 (a) disturbed areas of the primary permittee's construction site;

 (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and

- (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be seed stated until a Netice of Termiserior in substitute. conducted until a Notice of Termination is submitted.
- (4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).
- (5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following
- each inspection.

 (6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate r final), major observations relating to the implantation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.95). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plant. The report shall be signed in accordance with Part V.G.2. of this permit.

A description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures identified in the site plan in good and effective operating condition

Notice of Termination Eligibility

- (1). For construction activities projects, by the permittee where the entire stand alone development has undergone final stabilization and all storm water discharges associated with construction activity that are authorized by this permit have ceased. Provided, however, that the permittee may submit a Notice of Termination after a phase(s) of the stand alone development has undergone final stabilization and all storm water discharges associated with construction activity for that phase(s) that are authorized by this permit have ceased. (2). By the Owner or Operator or both when the Owner or Operator or both of the site changes. Where storm water discharges will continue after the identity of the Owner or Operator or both changes, the permittee must, prior to filing the Notice of Termination, notify any subsequent Owner or Operator or both of the permitted site as to the requirements of this permit.
- The Notice of Termination Shall be Submitted by the following procedure (to be completed Primary Permittee)

 All Notices of Termination by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD and to the local Issuing Authority in jurisdictions authorized to issue a Land Disturbance Activity permit for the ermittee's construction site pursuant to O.C.G.A. 12-7-1, et seq.

nspections (to be completed by Design Professional)

- (A) The Design Professional who prepared the ES&PC Plan shall inspect the initial sediment storage requirements and perimeter controls within 7-days after installation.

 (B) Any amendments/revisions to ES&PC Plan which significantly effects the BMPs with hydraulic component must be certified by

V. GENERAL SITE NOTES

- A. Contractor is responsible for maintaining erosion and sediment control devices in good working condition and clean out the devices
- B. It is the responsibility of the contractor to insure that under no circumstances shall any erosion, sediment, trash, or debris be allowed onto adjacent properties, public lands, or outside of the construction limits.
- C. Temporary silt control fence, type 'C' shall be installed and maintained by the contractor throughout the life of the project. The contractor shall inspect fence daily and after every rain. Contractor shall return and remove the silt fence when permanent grassing has
- D. No bury pits are allowed for construction within right of way. Stumps and debris may be ground and spread over the lift station sites or disposed of in approved construction debris landfills.
- E. If dust thrown up by vehicular activities is carried off site by winds, the contractor will be required to wet down haul roads and other areas in order to eliminate dust leaving the site, or construction limits.
- F. Land Disturbance Permit must be displayed on site at all times during construction and in plain view from a county road or street.
- G. At all times, the contractor shall adhere to local, state and federal erosion and sediment control regulations and to the latest edition of the "Manual for Erosion and Sediment Control in Georgia". Best management practices (bmp's) shall be exercised to control erosion and sedimentation for all rainfall events up to and including a 25 year, 24 hour rainfall event.
- H. Washing down and cleaning of concrete trucks is to be confined to a specific area set aside on-site for that purpose. Excess concrete and wash water are to be trapped on- site by means of a pit dug for that purpose
- I. Clean up and/or contain fuel and oil spills immediately. Report any chemical spills into waterways immediately to the Georgia EPD emergency response program (1-800-241-4113). If fuel and oil are to be stored on-site, they must be stored in accordance with the Georgia Fire Marshall's rules and regulations. A dike of sufficient height to contain the volume of fuel or oil being stored along with materials and products made for the absorption of petroleum products are required on-site. Any used absorbing material must be disposed of in an approved waste disposal site.
- J. There are no existing or proposed inert waste pits on site.
- K. Sediment storage design: See Sheets C-1 thru C-2:

 - Total storage volume required: 0.14 AC disturbed area x 67-C.Y. Storage per acre disturbed = 9.38C.Y.
 - Total Storage volume available (sediment barrier) : 300 L.F. X 3-ft x 1-ft / 27-C.F. = 33 -C.Y. (ok)

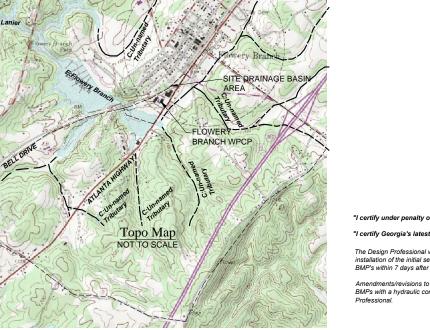
Half-Size Drawing

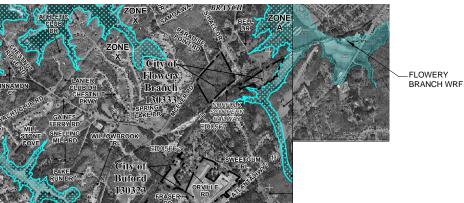




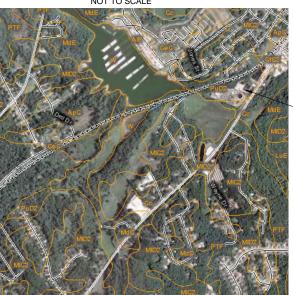


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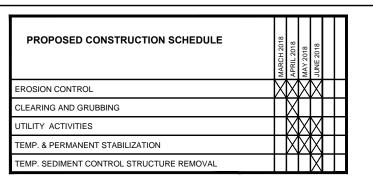
FEMA Flood Map NOT TO SCALE



FLOWERY

BRANCH WPCF

Soil Survey Maps



"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision.

"I certify Georgia's latest 305(b)/303(d) List Documents (Final) have been consulted to determine if the project site requires Part III.c of the permit due to Impaired Stream Segments

Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the Design

The Design Professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMP's within 7 days after installation.

Signature: Varles K eith Hendrix GSWCC CERTIFICATE NUMBER 0000000456

EROSION CONTROL LEGEND

- Cd CHECKDAM
- Ch CHANNEL STABILIZATION
- Di DIVERSION DITCH
- Dn1 DOWNDRAIN STRUCTURE
- PERMANENT DOWNDRAIN
- Ga GABION
- Mb EROSION CONTROL

WWTP EFFLUENT DISCHARGE

FORCE MAIN REPLACEMENT

ES & PC PLAN, MAP, AND GENERAL NOTES

- Co CONSTRUCTION EXIT
- TEMPORARY
- Ds2 Ds3 PERMANENT
- Ds4 PERMANENT VEGETATION (SODDING)
- LV LEVEL SPREADER
- ROCK FILTER DAM
- RETAINING WALL
- Sr STREAM CROSSING St STORM DRAIN OUTLET PROTECTION

Rp RIP-RAP

(Rt) RETROFITTING

Sd1-A SEDIMENT BARRIER

SEDIMENT BARRIER TYPE C

Sd2 SEDIMENT TRAP

Sd2-B9 SEDIMENT

TRAP

TEMPORARY SEDIMENT

TEMPORARY

- SURFACE ROUGHENING
- (Tp)TOPSOILING

JANUARY 2018 MCE PROJ. # 06414-0012 DRAWN: PY & CKH DESIGNED: PY & CKH

SCALE HORIZONTAL AS NOTED VERTICAL

STATUS

CHECKED:

PROJ. MGR.

BID SET



STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. MULCH MAY BE ANCHORED BY MECHANICALLY PRESSING INTO SURFACE. IF SPREAD WITH BLOWER EQUIPMENT, MULCH SHALL BE ANCHORED WITH MULSIFIED ASPHALT (GRADE AE-5 OR SS-1)-100 GAL. ASPHALT + 100 GAL. WATER PER TON OF MULCH. POLYETHYLENE SHALL BE TRENCHED IN AT EDGES.





- Cover surfaces with crushed stone or grave

Du Dust Control on Disturbed Areas

THE VEGETATIVE PLAN SHALL ESTABLISH TEMPORARY VEGETATION COVER WITH FAST GROWING SEEDLINGS FOR SEASONAL PROTECTION OF DISTURBED AREAS. TEMPORARY GRASSING AND MULCH HALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE AND SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE EFFECTIVE STABILIZATION.

CONVENTIONAL SEEDING EQUIPMENT_ GRADE SHAPE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WIL SE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND FIRMED. SEEDING WILL BE DONE WITH

CULTIPACKER-SEEDER, DRILL ROTARY SEEDER OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY, WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL. THE PER ACRE APPLICATION RATES ARE AS FOLLOWS:

- A. AGRICULTURAL LIMESTONE 4,000 LBS./ACRE B. FERTILIZER, 5-10-15 1,500 LBS./ACRE
- 1,500 LBS./ACRE 3,000 LBS./ACRE C. MULCH, STRAW OR HAY APPLICATION RATE(LBS./ACRE)

HOLLED DETAMODA GRADOT	10	471 10/10
RYE GRASS+	30	
FESCUE+	35	
DUTCH WHITE CLOVER	15	
SEED SPECIES	APPLICATION RATE(LBS./ACRE)	PLANTING DATES
UNHULLED BERMUDA GRASS+	10	10/16 - 4/1
RYE GRASS+	30	

- D. APPLY TOP DRESSING WHEN PLANTS ARE 2 TO 4 INCHES TALL FERTILIZER - AMMONIUM NITRATE 33.5% 300 LBS /ACRE

TEMPORARY GRASSING MUST CONFORM TO THE PLANTS, PLANTING RATES AND PLANTING DATES FOR TEMPORARY DS.2 GRASSING AS OUTLINED IN "THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA LATEST EDITION". TEMPORARY COVER SEEDLINGS MAY BE CHANGED IF APPROVED BY THE ENGINEER: EFFECTIVE JANUARY 1, 2012.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

THE VEGETATIVE PLAN SHALL ESTABLISH PERMANENT VEGETATION COVER WITH FAST GROWING SEEDLINGS FOR FINAL STABILIZATION OF DISTURBED AREAS. FINAL STABILIZATION MEANS THAT ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED.

CONVENTIONAL SEEDING EQUIPMENT GRADE SHAPE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND FIRMED. SEEDING WILL BE DONE WITH

CULTIPACKER-SEEDER, DRILL ROTARY SEEDER OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY, WITHIN 24 HOURS AFTER SEEDING. STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA LEAVING ROOMS AFTER SECURIOS, STRAY OF ATT INDICENTIFIES OF SPEED OF THE PARE A LEAVING A ROOM 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL. THE PER ACRE APPLICATION RATES ARE AS FOLLOWS:

- B. FERTILIZER, 5-10-15 1500 LBS./ACRE
- C. MULCH, STRAW OR HAY

SEED SPECIES	APPLICATION RATE(LBS:/ACRE)	PLANTING DATES
HULLED BERMUDA GRASS+	10	4/1 - 10/15
FESCUE+	35	
DUTCH WHITE CLOVER	15	
SEED SPECIES	APPLICATION RATE(LBS./ACRE)	PLANTING DATES
UNHULLED BERMUDA GRASS+	10	10/16 - 4/1
FESCUE+	35	
DUTCH WHITE CLOVER	5	

- D. APPLY TOP DRESSING WHEN PLANTS ARE 2 TO 4 INCHES TALL
- FERTILIZER AMMONIUM NITRATE 33.5% 300 LBS./ACRE E. SECOND YEAR FERTILIZER (5-10-15 OR EQUIVALENT) 800 LBS./ACRE

PERMANENT GRASSING MUST CONFORM TO THE PLANTS, PLANTING RATES AND PLANTING DATES FOR PERMANENT DS3 GRASSING AS OUTLINED IN "THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA LATES EDITION". TEMPORARY COVER SEEDLINGS MAY BE CHANGED IF APPROVED BY THE ENGINEER: EFFECTIVE JANUARY 1, 2012.

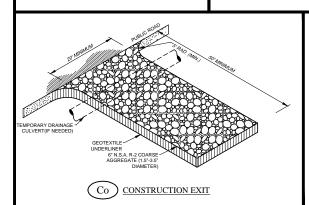
Ds3 DISTURBED AREA STABILIZATION

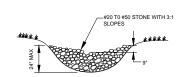
"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision.

"I certify Georgia's latest 305(b)/303(d) List Documents (Final) have been consulted to determine if the project site requires Part III.c of the permit due to Impaired Stream Segments.

Charles K Hendry The Design Professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control Charles Keith Hendrix GSWCC CERTIFICATE NUMBER 0000000456

Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the Design





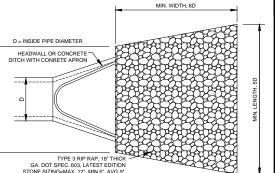
NOTES:

1. SEDIMENT SHALL BE REMOVED WHEN IT 1. SEDIMENT 9 THALL BE NEMOVED WHICH THE DAM.

2. CHECK DAMS SHALL BE PLACED SO THAT THE BOTTOM OF THE UPSTREAM DAM AN THE TOP OF THE DOWNSTREAM DAM ARE AT AN EQUAL ELEVATION.



(Cd) CHECK DAM DETAIL

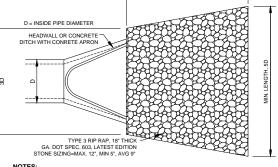


NOTES:

1. IN WELL DEFINED CHANNELS EXTEND RIP-RAP UP THE CHANNEL

WATER BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS. 2. A FILTER FABRIC SHALL BE INSTALLED BETWEEN THE STONE AND SOIL FOUNDATION.

St STORM DRAIN OUTLET PROTECTION





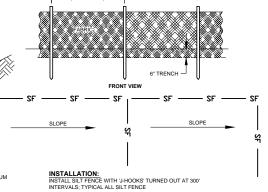
POST

NOTES:

1. SILT FENCE INSTALLATION AND MATERIALS SHALL MEET THE MINIMUM REQUIREMENTS OF SECTION 171 OF THE GA. D.O.T. SPECIFICATION (LATEST EDITION).

2. TYPE "C. FEQUIRES WOVEN WIRE SUPPORT WITH A MAXIMUM SPACING OF 4 AND STEEL POSTS.

- 3. MINIMUM POST LENGTH SHALL BE: 4' MIN. STEEL FOR TYPE 'C' FENCE

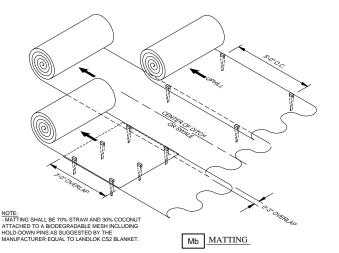


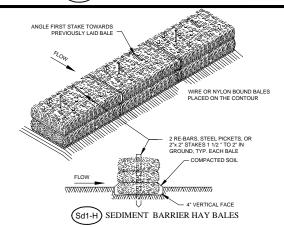
(Sd1-C) SEDIMENT BARRIER - SILT FENCE - TYPE C

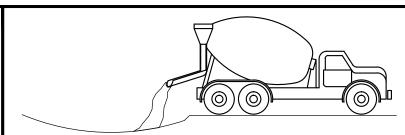
CRITERIA FOR SILT FENCE PLACEMENT

	MAXIMUM SLOPE
LAND SLOPE	LENGTH ABOVE FENCE
PERCENT	FEET
less than 2	100
2 to 5	75
5 to 10	50
10 to 20	25

* IN AREAS WHERE THE SLOPE IS GREATER THAN 20%, A FLAT AREA LENGTH OF 10 FEET BETWEEN THE TOE OF THE SLOPE TO THE FENCE SHOULD BE PROVIDED.







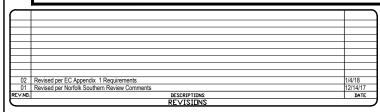
- . ENGINEER WILL DESIGNATE WASH DOWN AREA AND EXCAVATE PIT LARGE ENOUGH TO CONTAIN WASH DOWN WATER. THIS MUST BE AWAY FROM STORM DRAINS AND WATERWAYS.
- 2. CONTRACTOR WILL ADVISE CONCRETE TRUCK DRIVERS OF THE DESIGNATED WASH-OUT AREAS BEFORE THEY START
- I THE JUST.

 3. DRIVERS WILL WASH DOWN CHUTE, HOPPER, AND REAR OF VEHICLE ONLY DO NOT WASH OUT DRUM

 4. CONTRACTOR WILL ENSURE THAT ALL WASH DOWN WATER STAYS IN DESIGNATED AREA.

 5. CONTRACTOR WILL DISPOSE OF SETTLED, HARDENED CONCRETE IN GARBAGE WITH OTHER CONSTRUCTION DEBRIS.
- 6. CONTRACTOR WILL NEVER DISPOSE OF WASH DOWN WATER IN STREETS, STORM DRAINS, OR STREAMS.

CTW CONCRETE TRUCK WASHDOWN



Half-Size Drawing





Atlanta, Georgia 30350 Phone: (678)990-2469, Fax: (678)990-2469

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WWTP EFFLUENT DISCHARGE FORCE MAIN REPLACEMENT

ES & PC PLAN STRUCTURAL CONTROL DETAILS

$\overline{}$	DATE:	JANUARY 2018	-	1
	MCE PROJ. #	06414-0012		
	DRAWN:	PY & CKH		
	DESIGNED:	PY & CKH		
_	CHECKED:	SRH		
	PROJ. MGR.:	СКН		
			,	L

SCALE HORIZONTAL AS NOTED VERTICAL

BID SET

		N & POLLUTION CONTROL PLAN CHECKLIST E CONSTRUCTION PROJECTS
	SWCD: REGION 2	E CONSTRUCTION PROJECTS
Project Name:	Flowery Branch WPCP Outfall Imp.	Address: 5572 Atlanta Hwy, Flowery Branch, Ga 30542
City/County:	Flowery Branch, Hall	Date on Plans: 1/1/2018
	person filling out checklist:	Charles K Hendrix, khendrix@mckimcreed.com
Plan Included Page # Y/N	TO BE	SHOWN ON ES&PC PLAN
EC 4	1 The applicable Erosion, Sedimentation	n and Pollution Control Plan Checklist established by the Commission as of January 1
	of the year in which the land-disturbin	
	_ ` ` `	omitted with the ES&PC Plan or the Plan will not be reviewed)
EC 0-6		the Commission, signature and seal of the certified design professional.
EC 1	_	nust be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed) 4-hour local contact responsible for erosion, sedimentation and pollution controls.
EC 1	=	
	4 Provide the name, address and phone	
EC 1	5 Note total and disturbed acreage of the	
EC 1	 6 Provide the GPS locations of the beginner decimal degrees. 	nning and end of the Infrastructure project. Give the Latitude and Longitude in
EC 0-6	7 Initial date of the Plan and the dates of	f any revisions made to the Plan including the entity who requested the revisions.
EC 1	8 Description of the nature of constructi	on activity.
G1/EC 2	9 Provide vicinity map showing site's re	ation to surrounding areas. Include designation of specific phase, if necessary.
EC 0/1	10 Identify the project receiving waters a wetlands, marshlands, etc. which may	nd describe all sensitive adjacent areas including streams, lakes, residential areas,
EC 0-6	11 Design professional's certification state Plan as stated on page 15 of the perm	ement and signature that the site was visited prior to development of the ES&PC
N/A		ement and signature that the permittee's ES&PC Plan provides for an appropriate and sampling to meet permit requirements as stated on page 15 of the permit.*
N/A	Design professional certification state sampling as stated on page 26 of per	ment and signature that the permittee's ES&PC Plan provides for representative mit as applicable.*
N/A	14 Clearly note the statement that "The o	lesign professional who prepared the ES&PC Plan is to inspect the installation of the perimeter control BMPs, and sediment basins in accordance with part IV.A.5.
N/A	buffers as measured from the point of	exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream wrested vegetation or within 25-feet of the coastal marshland buffer as measured Line without first acquiring the necessary variances and permits."
N/A	16 Provide a description of any buffer en	croachments and indicate whether a buffer variance is required.
N/A	17 Clearly note the statement that "Amer hydraulic component must be certified	dments/revisions to the ES&PC Plan which have a significant effect on BMPs with a by the design professional.**
N/A		e materials shall not be discharged to waters of the State, except as authorized by a
EC 1		pe of sediment from the site shall be prevented by the installation of erosion and ces prior to land disturbing activities."

	THE SI	C PLAN MUST INCLUDE AT LEAST FOUR (4) OF THE FOLLOWING BMPS FOR THOSE AREAS OF TE WHICH DISCHARGE TO A IMPAIRED STREAM SEGMENT AND FOR SITES WHICH EPD HAS PPROVED IN WRITING A REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME. The four items chosen must be accordated for the site conditions.
Plan	Included	The four items chosen must be appropriate for the site continuous.
Page #	Y/N	
		a. During construction activities, double the width of the 25 foot undisturbed vegetated buffer along all State waters requiring a buffer and the 50 foot undisturbed vegetated buffer along all State waters classified as "root streams" requiring a buffer. During construction activities, EPD will not grant variances to any such buffers that are increased in width.
		 Increase all temporary sediment basins and retrofitted storm water management basins to provide sediment storage of at least 3600 cubic feet (134 cubic yards) per acre drained.
		c. Use baffles in all temporary sediment basins and retrofitted storm water management basins to at least double the conventional flow path length to the outlet structure.
		d. A large sign (minimum 4 feet x 8 feet) must be on the site on the actual start date of construction visible from a public roadway identifying the construction site, the permittee(s), and the contact person(s) and telephone number(s) until a NOT has been submitted.
EC-5&6	Х	 Use anionic polyacrylamide (PAM) and/or mulch to stabilize areas left disturbed for more than seven (7) calendar days in accordance with Part III. D.1. of the NPDES Permit.
		f. Conduct turbidity sampling after every rain event of 0.5 inch or greater within any 24 hour period, recognizing the exceptions specified in Part IV.D.6.d. of the NPDES Permits.
		g. Comply with the applicable end-of-pipe turbidity effluent limit, without the "BMP defense" as provided for in O.C.G.A. 12-7-6 (a)(1).
		 Reduce the total planned site disturbance to less than 50% impervious surfaces (excluding any State-mandated buffer areas from such calculations). All calculations must be included on the plan.
		 Limit the amount of disturbed area at any one time to no greater than 25 acres or 50% of the total planned site, whichever is less. All calculations must be included on the plan.
		j. Use "Dirt II" techniques available on the EPD website, www.gaepd.org (e.g., seep berms, sand filters, anionic PAM) to model and manage construction storm water runoff (including sheet flow). All calculations must be included on the Plan.
		 Add appropriate organic soil amendments (e.g., compost) and conduct pre- and post-construction soil sampling to a depth of six (6) inches to document improved levels of soil carbon after final stabilization of the construction site.
EC 5&6	Х	 Use mulch filter berms, in addition to a silf fence, on the site perimeter wherever construction storm water (including sheet flow) may be discharged. Mulch filter berms cannot be placed in waterways or areas of concentrated flow.
EC 5&6	Х	m. Apply the appropriate Georgia Department of Transportation approved erosion control matting or blankets or bonded fiber matrix to all slopes steeper than 3:1. All graphical illustrations must be included on the Plan.
		n. Use appropriate erosion control matting or blankets instead of concrete in all construction storm water ditches and storm drainages designed for a 25 year, 24 hour rainfall event.
		 Use anionic PAM under a passive dosing method (e.g., flocculant blocks) within construction storm water ditches and storm drainages that feed into temporary sediment basins and retrofitted management basins.

EC 1	20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
EC 1	21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
N/A	22 Any construction activity which discharges storm water into an impaired Stream Segment, or within 1 linear mile upstream of and within the same valentshed as, any portion of an Blota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the impaired Stream Segment.*
N/A	23 If a TMDL implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six morths prior to submitted in Vol1, the ESAPP Plan must address any site-specific conditions or requirements included in the TMDL implementation Plan
N/A	24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
EC 1	25 Provide BMPs for the remediation of all petroleum spills and leaks.
N/A	26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.*
N/A	27 Description of the practices that will be used to reduce the pollutants in storm water discharges.*
EC 2	28 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., Initial perimiter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
N/A	29 Provide complete requirements of inspections and record keeping by the primary permittee.*
N/A	30 Provide complete requirements of sampling frequency and reporting of sampling results.*
N/A	31 Provide complete details for retention of records as per Part IV.F. of the permit."
N/A	32 Description of analytical methods to be used to collect and analyze the samples from each location.*
N/A	33 Appendix B rationale for NTU values at all outfall sampling points where applicable.*
N/A	34 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is
	discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable.*
EC 5/6	35 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial
	sediment storage requirements and perimeter control BMPs, (2) Intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.*
EC 5/6	36 Graphic scale and North arrow.
EC 5/6	37 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:
	Existing Contours USGS 1": 2000' Topographical Sheets
	Proposed Contours 1": 400' Centerline Profile
N/A	38 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation
	as ceruilled by a Design Professional (unless disapproved by EPD or the Georgia Soil and water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.

_			
EC 5	&6 X	p.	Install sod for a minimum 20 foot width (in lieu of seeding) after final grade has been achieved, along the site
			perimeter wherever storm water (including sheet flow) may be discharged.
		q	Conduct soil tests to identify and to implement site-specific fertilizer needs.
		r.	Certified personnel for primary permittees shall conduct inspections at least twice every seven (7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or greater in accordance with Part $VD.0.4$, (3) , $(a) - (c)$; secondary permittees, Part $VD.0.4$, (3) , $(a) - (c)$; and tertiary permittees Part $VD.0.4$, (3) , $(a) - (c)$;
		S.	Apply the appropriate compost blankets (minimum depth 1.5 inches) to protect soil surfaces until vegetation is established during the final stabilization phase of the construction activity.
		t	Use alternative BMPs whose performance has been documented to be superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the State Soil and Water Conservation Commission). (If using this item please refer to the Alternative BMP guidance document found at www.asswcc.centria.gov)
		u	Limit the total planned site disturbance to less than 15% impervious surfaces (excluding any state mandated
			buffer areas from such calculations). All calculations must be included in the plan.
			Effective January 1, 2018
			* This requrement is different for infrastructure projects.
			Certified personnel for primary permittees shall conduct inspections at least once every seven
			(7) calendar days and within 24 hours of the end of the storm that is 0.5 inches rainfall or
			greater in accordance with Part IV.D.4.a.(3).(a) – (c) of this permit.

	02 Revised per EC Appendix 1 Requirements 1/4/18 1/18 1/18 1/19 1		DE VISIONS	J.II.C.
02 Revised per EC Appendix 1 Requirements 11/4/18 01 Revised per Norfolk Southern Review Comments 12/14/17	02 Revised per EC Appendix 1 Requirements 1/4/18 1/2 1/4/17 1/4/18 1/4	EV.ND.	DESCRIPTIONS	DATE
02 Revised per EC Appendix 1 Requirements 1/4/18	02 Revised per EC Appendix 1 Requirements 114/18	01	Revised per Norfolk Southern Review Comments	12/14/17
		02	Revised per EC Appendix 1 Requirements	

If-Size Drawing





365 Northridge Road, Suite 200 Atlanta, Georgia 30350 Phone: (678)990-2469, Fax: (678)990-2469

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N/A	39 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.*
EC 0/5	40 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
EC 0	41 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
EC 0/1	42 Delineation and acreage of contributing drainage basins on the project site.
EC 0/1	43 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.
EC 1	44. An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
N/A	45 Storm-drain pipe and weir velocilies with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
EC 1	46 Soil series for the project site and their delineation.
EC 5/6	47 The limits of disturbance for each phase of construction.
EC 1	48 Provide a minimum of 67 cubic years of sediment storage per are or dained using a temporary sediment basin, retrollited deletions pount, and/or excented intel sediment tays for each common darinage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the alte has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not celtahabile must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to vely 67 cubic yeards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and is calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasable, a water bustification explaining this decision must be included in the plan.
EC 5/6	49 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
EC 3	50 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
EC 5/6	51 Provide vegetative plan, notling all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.
	"If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the " checklist items would be NI/A. Effective January 1, 2018

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision."

"I certify Georgia's latest 305(b)/303(d) List Documents (Final) have been consulted to determine if the project site requires Part III.c of the permit due to Impaired Stream Segments

The Design Professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMP's within 7 days after installation.

Signature: Signature: Charles Keith Hendrix GSWCC CERTIFICATE NUMBER 0000000456

Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the Design Professional.

City of Flowery Branch Hall County, Georgia

WWTP EFFLUENT DISCHARGE FORCE MAIN REPLACEMENT

> ES & PC PLAN REVIEW CHECK LIST

DATE: JANUARY 2018 MCE PROJ. # 06414-0012 DRAWN: PY & CKH DESIGNED: PY & CKH CHECKED: PROJ. MGR.:

SCALE MCEFN HORIZONTAL: NA VERTICAL:

STATUS:

BID SET

